PREMIUM VAN ANNIVERSARY EDITION • PREMIUM DRIVE

MANUAL GB

Version 10/2014

Hobby

Dear Camper,
Congratulations on the purchase of your new HOBBY motor home. The trust you have placed in us is both an incentive and an obligation to continuously implement new ideas, technical innovations and fine touches to make our motor homes even better. Our fully fitted and highly sophisticated models enable us to offer you the perfect setting for the most enjoyable days of the year.

Please read this user manual carefully, even if you have already been driving a motor home for quite some time. This will help to prevent operating errors and damage to the vehicle and its equipment. Handling all of the technical details correctly will increase the pleasure you get from driving this vehicle and help to retain the value of your motor home.

If this user manual should be unable to provide the required assistance, a close, pan-European network of dealers is available for further help. Take advantage of your authorised dealer's experience and technical knowledge - we recommend speaking to them in detail before taking your first trip with your HOBBY motor home.

We wish you and your fellow travellers many enjoyable trips and hope you will always have a safe journey with your new HOBBY motor home.

Your
HOBBY – Wohnwagenwerk
Ing. Harald Striewski GmbH

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Chapter 1: Introduction

Our motor homes are continuously being further developed and for this reason we must reserve the right to make changes to the equipment, shape and technology. Certain kinds of accessories are also described in this user manual that are not part of the standard scope of delivery. For this reason, no claims may be asserted against HOBBY based on the contents of this user manual. Those accessories that are available at the time of going to print are described here. They have been applied on a par for all floor plans. Please note that it was not possible to describe all of the individual variations here. If you have any special questions concerning accessories or the technology of the vehicle, your dealer will be happy to answer them.

1.1 General information

Your HOBBY motor home has been built in accordance with the latest technology and approved safety regulations. Despite all precautionary measures, however, it is possible that passengers may be hurt or the motor home damaged if the safety instructions in this user manual and the warning stickers placed throughout the motor home are not observed.

- Please use the motor home only when it is technically in top condition.
- Any defects that affect the safety of passengers or the motor home should be remedied immediately by trained personnel.
- The brake system and the gas system should only be checked and repaired by an authorised workshop.
- Please ensure that all of the deadlines for checking equipment and inspections are met.

1.2 Before taking your first drive

Please do not consider this manual to be just a means of reference, but familiarize yourself thoroughly with it before taking your first drive.

Fill out the guarantee cards in the different manuals for the installed equipment and fittings and send them to the manufacturers. This will ensure guarantee claims for any of the equipment.

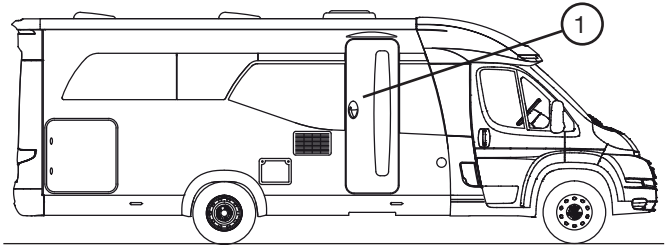
In accordance with guarantee conditions, HOBBY's dealer will give you a 5-year guarantee on the consistency of the motor home. Your dealer will give you a guarantee booklet, “5 Years‘ Guarantee on Consistency“ when you pick up your vehicle.

You will be charged for the annual inspection for leak tightness. If a consistency test has not been carried out, you will forfeit any claims for a 5-year guarantee on consistency.

1.2 Designations in the operating instructions

This manual explains the motor home in the following manner:

Texts and illustrations
Texts that refer to illustrations are found directly below the illustrations.
Details in illustrations (here: entrance) have been given item numbers .



Lists
Lists are given in the form of key words and shown as bullet points using "-".

Handling instructions
Handling instructions are also given in the form of key words beginning with the symbol "•".

Notes

Notes point out important details that ensure your motor home and its fittings will function perfectly. Please remember that there may be some differences in description to the various kinds of equipment that can be supplied.

Warnings

Warnings make you aware of dangers that may lead to material being damaged or even people being hurt if they are not observed.

Environmental Tips

Environmental tips give you possibilities for lessening the impact on the environment.

Optional Extras
You have selected a mobile home that is equipped to taste.

This user manual describes all of the models and equipment offered within the same programme. Therefore, it may include equipment that you have not selected.

Differences and, thus, all of the optional extras are marked with an asterisk „*".

Should there be any equipment or model that is not described in this user manual, please note the enclosed additional operating instructions.

Timeliness of This Manual
The high level of quality and security for mobile homes is ensured by means of continuous further development. In very rare cases, there may be a difference between the description and the vehicle itself.

Chapter 2: Safety

2.1 General information

- Operating and user instructions for built-in equipment (refrigerator, heating, cooker, etc.) as well as for the basic vehicle must be observed at all times.
- If accessories or optional equipment is to be installed, this may change the measurements, weight and road performance of the engine home. Some accessories must be registred and entered in the vehicle's papers.
- Use only tyres and rims that have been approved for your engine home. Information on tyre and rim sizes can be found in the vehicle's registration document or in **Chapter 14.4.**

Warnings and information labels are attached both inside and outside the vehicle. These are meant for your safety and may not be removed.

2.2 Fire protection

Precautions against fire

- Never leave children alone in the vehicle.
- Keep inflammable materials away from all heating and cooking devices.
- Any changes to the electric system, accelerator system or built-in devices may only be carried out by an authorised workshop.
- Install a fire extinguisher next to the main entrance.
- Ensure that everyone is familiar with the guidelines on the fire extinguisher.
- Store a fire blanket near the cooker.
- Do not block any escape routes.
- Familiarise yourself with all safety measures set up on the property.

Fighting fire

- Immediately evacuate all passengers.
- Close the main stop valve on the accelerator cylinder and the accelerator stop valves for the consumer loads.
- Turn off the electric supply.
- Sound the alarm and call the fire department.
- Only fight the fire yourself if you can do so without risk.

2.3 Equipment

2.3.1 Emergency equipment

To be prepared in case of an emergency, you should always carry the three emergency devices on board and familiarize yourself with them.

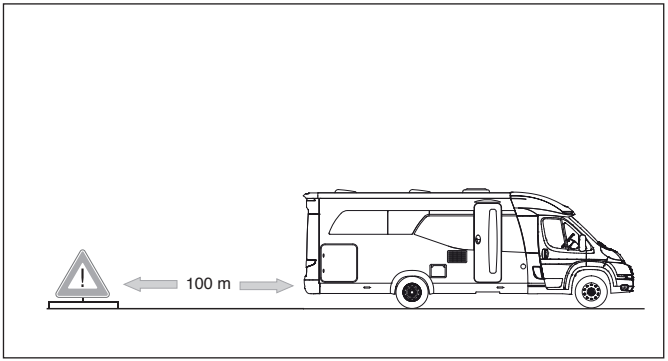
First-aid kit

The first-aid kit should always be at hand and have a fixed position in your motor home. Any objects removed from the first-aid kit should be replaced immediately. Expiry dates should be checked regularly.

Reflective jacket*

In acc. with EN 471, we recommend that you carry and wear a reflective jacket with white retro-reflective stripes whenever you leave the vehicle on open roads and emergency strips.
The driver must put on this warning vest when the vehicle

- comes to a stop outside city limits on an obscure rural road because of an accident or breakdown, if the view is poor due to bad weather, in twilight or darkness, or
- when it must be secured by means of a warning triangle on the emergency strip of the engineway because of an accident or breakdown.

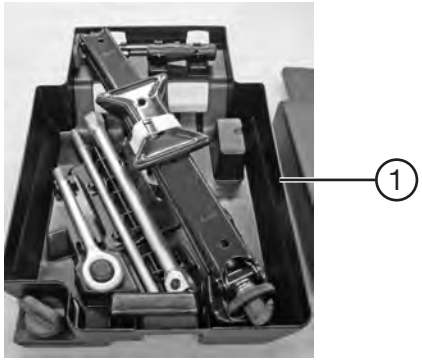


Warning triangle

The warning triangle should also always be at hand and have a fixed position in your motor home, preferably together with the first-aid kit.

In an emergency

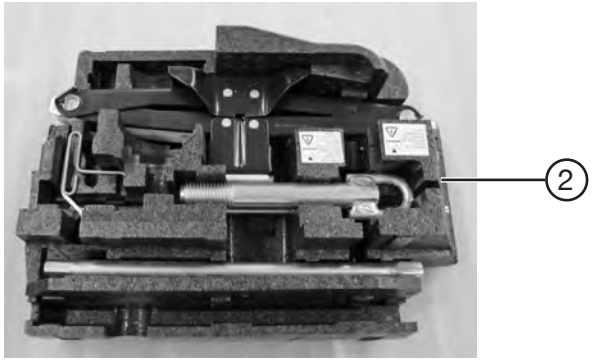
- Set up the warning triangle at least 100 m in front of the danger zone!



2.3.2 Vehicle tool kit

Each vehicle comes with individual basic equipment including a vehicle tool kit and accessories:

Fiat:
The tool box ① is located underneath the bed or in the external storage locker (model-specific).



Renault:
The tool box ② is included separately in the external storage locker.

2.4 Before driving

2.4.1 What to observe before taking your first drive

Vehicle registration

Every vehicle that drives on public roads must be registered. This also applies to your new engine home. Apply for registration at your local Driver and Vehicle Licensing Agency.

You must show the following when applying for registration:

- registration document, Part II / CoC
- insurance coverage
- proof of personal identity or confirmation of registration by a local authority
- if applicable, power of attorney to register the vehicle
- If applicable, the direct debit authorisation for motor vehicle tax

General inspection

In common with passenger cars new engine homes with a permissible total weight up to 3.5 tonnes do not have to undergo a general inspection for the first three years after initial registration. After this they must undergo a general inspection every two years. Engine homes weighing between 3.5 and 7.5 tonnes must undergo a general inspection every two years during the first six years following initial registration. After this a general inspection must be carried out every year.

The general inspection can be carried out by the German Technical Surveyance Association (TÜV), the German Engine Vehicle Surveyance Association (DEKRA) or an officially approved expert.

Any changes made to the vehicle that underlie German Road Traffic Licensing Regulations must be officially authorised!

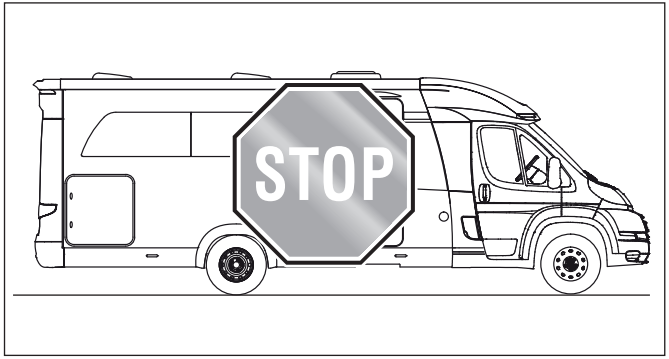
If you have any further questions or difficulties, your authorised Hobby dealer will always be available to assist you!

- **Tighten the nuts on the wheels after driving the first 50 miles with your camper.**
- **Switch off the gas-operated built-in devices before putting petrol in the tank.**

2.4.2 Before each drive

Road safety

- Before driving, check that the signalling and lighting systems (switch on battery circuit breaker), steering and brakes function correctly.
- If the vehicle has been standing for a longer period of time (approx. 10 months) have an authorised workshop check the brake system and the accelerator system.
- Completely open and fasten the dimming system on the front and side windows.
- In winter, the roof must be cleared of snow and ice before driving.
- Regularly check the tyre pressure before driving. False tyre pressure can cause excessive wear, damage to the tyres or even lead to a burst tyre.
- Check liquids such as oil, coolant, brake fluid and wind-screen washer fluid and top them up if necessary.



As the owner / driver of the vehicle, you are responsible for the state of the vehicle. Please observe the following points:

Loading

The following applies for loading:

- Load evenly. Heavy or bulky objects should be placed in the lower compartments!
- After loading, use a public weighing facility to check the total weight and axle loads.

Rear garage (model-specific)

When loading the rear garage adhere to the permissible axle loads and the technically permissible total mass. Distribute payload evenly. Excess point loads will damage the floor covering.

- The maximum permissible load for the rear external storage locker is 150 kg.
- On no account should the permissible rear axle load be exceeded.
- Due to load removal on the front axle, it is considerably more difficult to handle the vehicle when the rear garage is fully loaded.

Roof load (50 kg maximum)

The height of the motor home may vary from one journey to the next due to different roof loads.

The following applies for roof loads:

- Add the measurement of the roof load to the height of the motor home.
- Place a not visibly in the driver's cab giving the overall height. This saves having to calculate the height when driving under bridges and through tunnels.

Battery

- Fully charge the batteries before each journey. Please refer to the section on "Ancillary battery".
- Switch on battery circuit breaker.

Driver‘s cabin

Do not forget the following:

- Adjust the interior and exterior mirrors as well as your seat.

Preparing the vehicle

Check the exterior of the vehicle and carry out the following preparations before driving:

Preparing the vehicle

- If the levelling supports* have been extended, retract them.
- Close all the windows in the engine home as well as skylights in the roof.
- Retract the entrance step.
- Close the tap for the waste water tank.
- Close all of the gas stop valves on the gas devices, with the exception of the stop valve for the heating if the vehicle has been equipped with a gas pressure regulator for use while driving. (e.g. Control CS, SecuMotion)

- If necessary remove the 230 V electric cable from the exterior socket.
- If necessary, slide the TV antenna* in as far as possible or retract the satellite dish*.
- If necessary secure any loads on the roof ensuring that they cannot slide.
- If necessary secure bicycles; ensure that they cannot slide and check that the existing lighting systems are not covered.
- If necessary turn off the light in the tent in front of the engine home.

Interior

Some preparations must also be carried out inside the motor home.

Preparing the interior

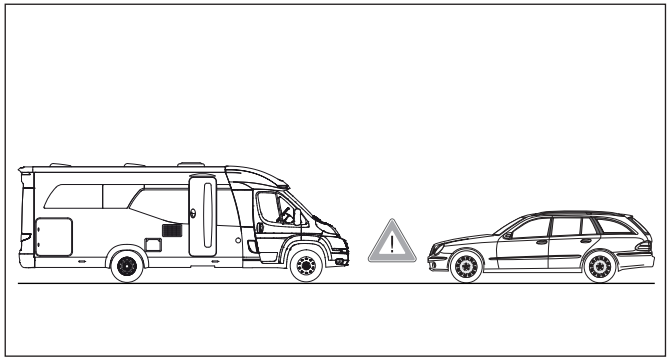
- Sort loose objects and stow them in the compartments.
- Place heavy objects in the lower compartments.
- If necessary switch the refrigerator to 12 V operation.
- Ensure that no liquids, including those in the refrigerator, will leak.
- Secure accelerator cylinders.
- Fold down and secure the table.
- Turn off interior lights.
- Secure the table and, if possible, lower it.
- Close doors (including refrigerator door), drawers and flaps firmly.
- Heavy and/or voluminous objects (e.g. TV, radio) must be secured before driving.
- Fully open the Remis Blinds for the driver's cab and lock it into place.
- Push the washroom with sliding door (model-specific) to its original position.

Do not overload the vehicle! It is imperative that you not the permissible axle loads, the technically permissible overall mass as well as the permissible height, width and length of the motor home.

Gas bottles may only be transported when they are securely fastened in the gas bottle container provided.

Ensure that there is sufficient ventilation. Never cover up built-in forced ventilation (skylights with forced ventilation or mushroom vents). Ensure that forced ventilation is not covered by snow or leaves as this increases the **danger of suffocation.**

Place a note with all important measures and weights in a visible place in both the caravan and the driver‘s cabin.



2.5 While driving

Your motor home is not an automobile!
In many situations, it reacts very differently to a “normal“ automobile. Therefore, you should be prepared for the following differences:

Passenger safety

The following applies while driving:

- Only those seats equipped with safety belts may be used by passengers.
- People may not be lying in the beds while driving.
- Passengers must remain in their seats with their seat belt on!
- Only install children's car seats on seats that have been fitted by the manufacturer with three-point belts.
- Turn the swivel seats in the direction of traffic and lock them into place. The seats may not be turned while driving.

- Do not open the door latch!
- No extra passengers may remain in the vehicle!

Driving

Take a trial drive before leaving on your first large journey in order to familiarize yourself with the motor home. Remember to practise reversing. The base vehicle is a commercial vehicle; adjust your driving style accordingly.

The following applies for driving:

- Do not underestimate the length of the engine home. Due to the relatively long rear overhang larger vehicles can veer to one side and, in unfavourable conditions, the rear can hit the ground.
- Be careful when driving into inner courtyards and through entrance gates.
- The motor home may start to swing from side to side in cross-winds, on wet or icy roads.
- Adjust your speed to road and traffic conditions.

- Long descents with a slight gradient can become dangerous. Adjust your speed from the very beginning to allow you to speed up if necessary without endangering other automobiles.
- As a general rule, never drive faster downhill than uphill.
- The motor home may be caught up in a slipstream when overtaking or being overtaken by lorries with trailers or buses. This effect is counteracted by lightly counter-steering.
- Use foresight while driving; take regular breaks on longer drives.

Driving arround corners

Due to its height, a motor home begins to sway more quickly than an automobile.

The following applies for driving arround corners:

- Never drive too quickly into a corner!

Driving economically

The engine of your motor home has not been designed to drive constantly under a full load.

The following applies when driving:

- Do not keep your foot down on the accelerator!
- The final 20 km/h before reaching top speed require up to 50 % more fuel!

Braking

The following applies for braking:

- Not the longer braking distance, especially on wet roads.
- When driving downhill, select a gear that is not higher than when driving uphill.

Reversing/Manoeuvring

Your engine home is far larger than a car.

The following applies to reversing/manoeuvring

- Even if the wing mirrors are correctly adjusted there is a significant blind spot.
- When reversing or parking in places with poor visibility get help to guide you in.

Getting petrol

A number of devices that use an open flame have been built into your motor home.

The following applies when getting petrol:

- Turn off all accelerator devices (heating, refrigerator, etc.)!
- Turn off all mobile phones!
- Never get anything other than diesel fuel.
- Never mistakenly fill the fresh water tank with fuel.

2.6 After driving

Selecting a parking space

The following applies for selecting a parking space:

- Select a parking space that is as level as possible.
- If possible, pick your spot in daylight.

Securing the vehicle

The following applies when securing the vehicle:

- Put the vehicle in gear.
- Pull on the handbrake.
- If necessary, extend extra vehicle supports.
- If necessary, use blocks (not in scope of delivery).

If the temperature is below 0°C only put the handbrake on lightly and ensure that the vehicle is in gear to prevent the handbrake from freezing up!

When turning the driver‘ seat, ensure that you do not accidently disengage the handbrake.

Switching electric consumption:

The following applies when switching electric consumption:

- Switch the refrigerator from 12 V to accelerator or 230 V. Otherwise, if the engine is not on, the 12 V electrical supply will automatically turn itself off after a few minutes.
- Open the main stop valve on the accelerator cylinder and the accelerator stop valve on the consumer required.

Water installation

Water left standing in the fresh water tank or the pipes quickly becomes undrinkable.

Please empty any residual water from the water tank before filling it with fresh water.

Therefore, check the water pipes and the fresh water tank before each drive to ensure they are clean. Disinfect and rinse the drinking water
facility regularly, and always before each journey.

Chapter 3: Chassis

3.1 Chassis

The chassis includes parts of the frame and the axles. No technical changes may be made, as otherwise the general type approval will expire!

Technical changes may only be carried out after being released by the manufacturer.

For further information, please refer to the enclosed operating instructions for the basic vehicle.

3.2 Vehicle identification number (VIN)

On Renault models, the 17-digit vehicle ID number is located above the right entrance step. On Fiat models, it has been applied to the inner wheel case on the passenger's side. To identify it more easily, the VIN on Fiat models can also be found on a label on the left-hand side of the dashboard, which is legible from outside the vehicle. In addition, the VIN is also given on the type plate of the base vehicle as well as on the Hobby type plate (in the motor compartment on the upper front cross member of the radiator).

Always have your VIN at hand whenever you have a question or visit your dealer/contractual partner.

3.3 Loading

3.3.1 General information

Rules for loading:

- Spread the load evenly between the left and right-hand side of the motor home. Heavy or bulky objects belong in the lower storage compartments and near the axle.
- Store baggage in the interior in cupboards and storage compartments.
- Heavy objects should be stowed securely to prevent them from slipping.
- Lighter objects (clothing) should be stowed in the wall cupboards.
- Secure doors and flaps.
- Check the technically permissible maximum weight and the axle load(s) after you have finished loading.

The maximum axle loads as well as the technically permissible overall mass entered in the vehicle‘s documents may not be exceeded

If you are not sure whether or not you have overloaded the vehicle, you should have it weighed at a public weighing facility.

Overloading can cause the tyres to break down or even burst! This increases the danger that you may lose control of the vehicle. Therefore, you endanger yourself and other road users.

3.3.2 Definition of masses for mobile homes

EU Directive 1230/2012 applies at a European level for calculating the masses and resultant additional loads for mobile homes. The terms and basis used for calculations are explained below.

1. Technically permissible overall mass

Information regarding the technically permissible maximum weight is based on Hobby Wohnwagenwerk's specification in cooperation with the manufacturers of the previous construction stages (Fiat, Renault). This mass takes into account the specific operating conditions that are based on the model of the mobile home and its performance, including such factors as material strength, load-carrying capacity of the axles and tyres, etc. For safety reasons, this mass must never be exceeded!

2. Mass when the vehicle is ready to start

The mass when ready to drive is equal to the weight of the empty vehicle including lubricants, tools, spare tyre (or tyre repair kit), petrol (100 %), ancillary battery, all of the standard equipment installed by the factory as well as 75 kg for the driver. In addition, the masses for the fresh water and gas storage containers, which have been filled to 90 % of their total capacity, must be added. The masses are calculated in detail as follows:

	FIAT Premium Drive RENAULT Premium Van
a) Supply of liquefied petroleum gas	
Number of built-in gas regulators:	1
Weight of an 11 kg aluminium bottle:	5,5
Weight of 11 kg gas inflation:	11
Total:	**16,5**
b) Liquids	
100 l fresh water tank:	100
90 l fresh water tank:	-
c) Electric power supply	
Cable drum:	4
Total basic equipment:	**120,5 kg**

3. Additional equipment / optional extras
Mass of the equipment that was assembled by the manufacturer in or on the mobile home in addition to the standard equipment. These optional extras will be shown in the actual mass of the vehicle if

- they are not part of the standard scope of equipment,
- Hobby or the manufacturer of the base vehicle were responsible for assembling them,
- the customer can order them.

4. Actual mass
Sum of the mass when ready to drive and the optional extras or additional equipment assembled by the manufacturer.

5. Loading capacity / additional load
Difference between the technically permissible maximum weight and the mass when ready to drive, plus the mass of the passengers and the mass of the additional equipment.

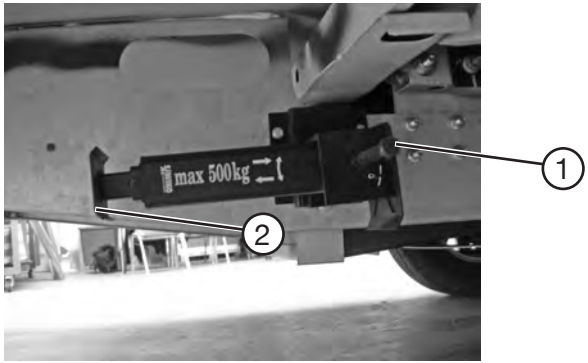
6. Minimum loading capacity
The loading capacity must be equal at least to the formula **10 x (n + L)**, whereby:

n =highest number of sleeping spaces
L = total length of the superstructure

The minimum loading capacity includes objects that users may carry in the mobile home which are not included in the mass when ready to drive or in the optional extras (e.g. clothing, toilet and kitchen fittings, food, camping equipment, toys, pets).

The remaining additional load (**5.**) must always be greater than or equal to the minimum loading capacity (**6.**); this must be taken into account when determining the configuration of the vehicle.

If the vehicle does not hold the equipment and liquids set out in the table in Item 2 (mass when ready to drive), the loading capacity/additional load (Item 5) can be increased by this value.



3.4 Levelling supports *

The levelling supports are located in the rear area by the frame extension.

Swinging out the levelling supports

- Place the crank on the hexagon head ① .
- Turn the crank to move the support to a vertical position.
- If necessary, secure the foot ② to prevent it from sinking into the ground and place it on a firm base.
- If the levelling support is in a vertical position, the support foot will extend telescopically.
- Use the crank to level the levelling supports until the vehicle stands level.

Retracting levelling supports

- Use crank to release levelling supports.
- Continue to crank smoothly until the levelling support is once again in its initial horizontal position.

- Do not use the levelling supports as a car jack. Their sole purpose is to stabilise the motor home when it is parked.
- Always load the levelling supports evenly (max. 500 kg per support).
- Always retract the levelling supports and secure them before driving.
- Clean the levelling supports regularly and grease them slightly.

The telescopically adjustable foot may only be extended as far as the yellow marking!

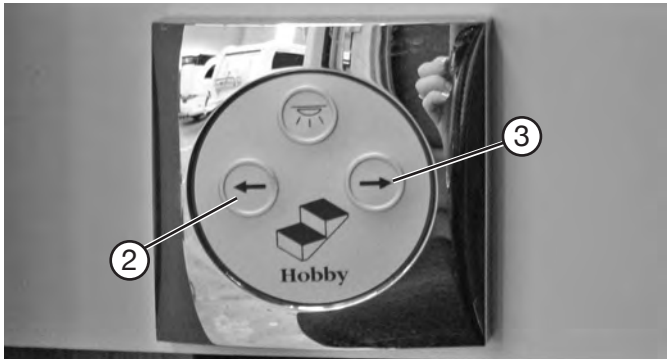
3.5 Entrance step

The motor homes are equipped with an electrically extendable entrance step ①.

⚠ Do not step on the entrance step until it has been completely extended!

☞ Mind the different heights of the steps and ensure that the ground in front of the entrance is firm and level.

⚠ Following a short delay after the motor is started, the step is automatically retracted.



To open

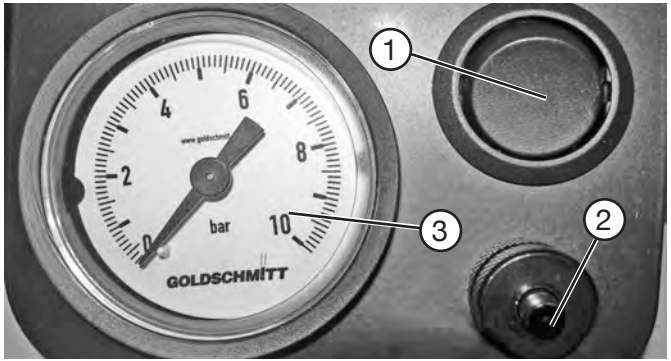
- Press the switch ② in the entrance area.
  The entrance step will be extended automatically.

To close

- Press the switch ③ in the entrance area.
  The entrance step will be retracted automatically.

⚠ Continue pressing the switch until the step has completely folded in or out.

☞ If, due to dirt or frost, the entrance step does not function properly or at all, the hinges must be cleaned or defrosted.



3.6 Additional pneumatic springs*

Additional pneumatic springs on the rear axle (optional extra) provide a significant improvement to the motor home's road handling and complement the standard suspension. The air bellows lift the vehicle's tail as required.

The compressor is activated from the driver's cabin operating panel using the On/Off button ①, thereby filling the bellows with air. The manometer ③ can be used to provide continuous information regarding the current pressure in the system. Should excess pressure occur the excess air can be released from the system using the ventilation button ②.

The optimum air pressure is achieved when the vehicle is standing horizontally. The minimum air pressure must be high enough to ensure that the air bellows cannot snap through. When the vehicle is empty this pressure is approx. 0.5 bar (please check individually); when the vehicle is loaded the value will be correspondingly higher, depending on the loading.

⚠ The maximum permissible operating pressure of the system is 4.0 bar.

In order to avoid damage to the air bellows during maintenance work they should be checked for any accumulation of waste or dirt and, if required, cleaned.

☞ The following cleaning agents are approved for cleaning the air bellows: soap suds, methanol, ethanol and isopropanol.

3.7 Towing fixture *

The maximum towing weight, trailer load and tow bar load are set out in **Chapter 14 "Technical Data"**.

Please ensure that the permissible tow bar load, maximum towing weight and rear axle load for the vehicle are not exceeded, especially when you are loading the rear garage. Simultaneous use of the tow-bar and the rear carrier and/or eBike carrier is not permitted.
While manoeuvring to hitch and unhitch loads, ensure that no-one is standing between the motor home and the trailer.

Due to stipulations by the manufacturer of the basic vehicle and the fixing of the so-called D value of the towing fixture no additional loading of the towing loads is possible.

3.8 Externally mounted fixtures

Registering accessories in the vehicle's documents

- Have your HOBBY dealer mount your externally mounted fixtures.
- Take your motor home to a technical support organisation or technical service provider (e.g. MOT).
- The technical support organisation will approve the fittings and draw up a corresponding expertise. (road traffic authorities)
- Take the expertise and the Motor Vehicle Registration Certificate Part I to the national vehicle registration authority (Driver & Vehicle Licensing Agency). They will enter the change in the registration document.

Please remember that the tow coupling, motorcycle carrier, pneumatic suspension and/or additional leaf springs must be entered in the registration document.

Please note that mounting additional equipment reduces the load your motor home can carry.

3.9 Automatic transmission *

As an option, your motor home can be equipped with an automatic transmission (Fiat: Comfort-Matic; Renault: Quickshift) which has two methods of operation: MANUAL/gearshift and AUTO(MATIC). Since the clutch is engaged and released by means of an electro-hydraulic unit that is controlled by the transmission‘s control unit, the clutch pedal is superfluous and, therefore, it has been removed. Both the selected method of operation as well as the gear you are driving in are shown on the multifunction display panel.

FIAT Comfort-Matic

The gearshift lever on the dashboard has three fixed positions:
– the centre position for selecting the forward gear,
– N for selecting the neutral position (engine is idle),
– R for selecting the reverse gear.

Starting from the centre position, which corresponds to the forward gear, the lever can be moved as follows:
– forwards (- position) to select a lower gear (i.e. shifting down),
– backwards (+ position) to select a higher gear,
– to the left (A/M position) to select automatic or manual mode, alternatively.

These three positions are not fixed, i.e. after the lever has been moved it jumps back to the centre position.

Renault Quickshift

The gearshift lever has only one fixed gearshift position. Starting from the centre position, the lever can be moved in the following directions:

– to the left: for shifting between manual operation and automatic
– to the right: neutral
– to the right and back: reverse gear
– forwards: to shift up to a higher gear (when in manual operation)
– backwards: to shift down to a lower gear (when in manual operation)

Each time you move the gearshift, it automatically jumps back to the centre position.

Manual operation

This method of operation allows the driver to select a suitable gear according to the conditions under which the vehicle is being driven. Switch gears as follows:

- Move the lever in the direction of (+) to shift up or in the direction of (-) to shift down. Do not let go of the gas pedal while you are shifting gears.

The system will only allow you to shift when such an action will not prevent the motor or the transmission from functioning correctly. As soon as the motor reaches idle speed, the system will automatically shift down (e.g. when braking).

Automatic operation

The lever must be pressed in the direction of A/M in order to switch automatic operation on or off. The system automatically shifts gears on the basis of the vehicle‘s speed, the engine rpm and the position of the gas pedal. If necessary, the system will shift down one or more gears when you press the gas pedal to the floorboard. This will provide you with the required performance and torque to achieve the acceleration you require.

Parking the vehicle

To ensure that the vehicle is safely parked, step on the brake pedal and then shift into either first gear or reverse (R). Furthermore, when parking on a slope, you must also pull the hand brake.

⚠ Never leave the vehicle when the transmission is in neutral (N).

☞ If the vehicle is not moving and you have already shifted into gear, always step on the brake pedal until you have decided to start driving. Only then should you release the brake pedal and slowly step on the gas pedal.

☞ If the vehicle is not moving and the engine is running for a longer period of time, we recommend that you shift to neutral (N).

☞ Do not use the gas pedal as a means of holding the vehicle in one spot (e.g. on a slope). Instead, use the brake pedal and step on the gas only when you start to drive.

☞ If you want to shift into first gear when in reverse gear (R) or vice versa, the gearshift lever may only be moved when the vehicle is standing completely still and you are stepping on the brake pedal.

☞ For further information, please refer to the operating instructions for the base vehicle. Please familiarise yourself sufficiently with the operation of the automatic transmission before you use your vehicle the first time.

Chapter 4: Wheels and Tyres

4.1 Wheels

If you are driving a new vehicle, or after changing a tyre, tighten the wheel bolts or nuts after you have driven the first 50 km and then again after the following 100 km. For your safety, do not use any tyres or fixing material other than what was originally stipulated. Wheel bolts and nuts should then be checked regularly to ensure that they fit tightly.

Tightening torque for wheel nuts and bolts:

Rim size	Fiat Ducato	Renault Master
16''	180 Nm	172 Nm
15''	160 Nm	–

4.2 Tyres

Use only tyres that have been entered in the vehicle's documents. Other tyre sizes may only be used if they have been permitted by the manufacturer of the basic vehicle.

Driving to protect your tyres

- Avoid braking sharply and racing starts.
- Avoid long drives on poor roads.
- Never drive an overloaded vehicle.

Tubeless tyres have been mounted on your HOBBY motor home. Under no circumstances may tubes be inserted in these tyres!

Winter tyres are mandatory in many EU countries!
If you are driving in snow, ice or sludge in one of these countries, your vehicle must be fitted with tyres that have the "M+S" symbol. You may be fined if you ignore this legal requirement.

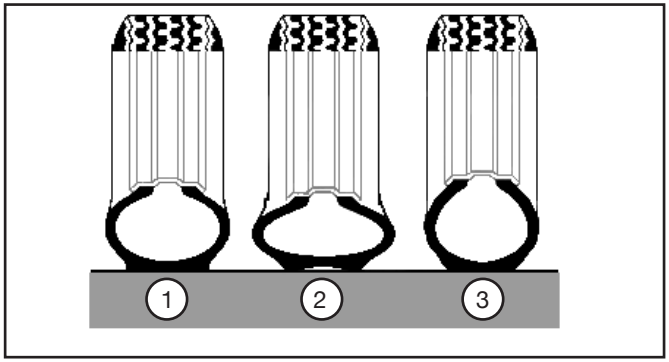
Snow chains

Never drive faster than 50 km/h.

Do not use snow chains on snow-free roads.

Snow chains can only be mounted to tyres that are just as large as the tyres originally mounted on your vehicle. Snow chains may only be mounted on the front drive wheels; it is strictly forbidden to mount snow chains on the rear wheels.

Ornamental hub caps must be removed before putting on snow chains.



4.3 Tyre pressure

The inflation pressure of all tyres as well as the spare tyre should be checked approx. every 4 weeks and before you go on longer journeys.

The following applies when checking inflation pressure:

- Check the pressure only when the tyre is cold.
- If checking or correcting the pressure of a warm tyre, the pressure must be 0.3 bar higher than for a cold tyre.

The following applies for inflation pressure:

- correct inflation pressure ①.
- inflation pressure too low ②.
- inflation pressure too high ③.

If the pressure is too low, this may cause overheating of the tyre, possibly resulting in severe damage to the tyre.

For the correct inflation pressure, please refer to the table in the chapter on “Technical Data“ or the operating instructions for the basic vehicle.

4.4 Tread depth

Replace your tyres as soon as the tread depth is only 1.6 mm.

The minimum tread depth gives you only the barest amount of safety while driving. The following recommendations must be observed:
Safety limit in summer: 3.0 mm
Safety limit in winter: 4.0 mm

Tyres may not be exchanged crosswise, i.e. from the right side of the vehicle to the left and vice versa.

Tyres age even if they are used seldom or not at all.

Tyre manufacturers‘ recommendations

- Irrespective of their tread depth, tyres should be changed every 6 years.
- Avoid hard impacts against curbs, potholes or other obstacles.

4.5 Wheel rims

Only use the rims noted in the registration documents.
Should you wish to use other rims, please note the following.

The following applies when using other wheel rims:

- Size,
- construction,
- injection depth and
- The load bearing capacity must be sufficient for the permissible total axle weight.
- The cone of the fastening screw must correspond to the construction of the wheel rim.

Adaptations are only permitted if these have been released by the manufacturer.

Aluminium wheel rims must be tested separately for each type of vehicle. The screws used on aluminium rims may not be used for steel rims.

4.6 Fast tyre repair kit

Your mobile home does not have a spare tyre. Instead, a fast tyre repair kit is included.

Do not use the fast tyre repair kit if the tyre was damaged by being driven when insufficiently inflated. If the tyre rim is damaged (i.e. if the groove is deformed so that air escapes) it is not possible to repair the tyre. Small punctures, especially in the tyre tread (with a max. diameter of 4 mm) can be sealed using the fast tyre repair kit. Do not remove foreign matter (e.g. a screw or nail) from the tyre.

The fast tyre repair kit can be used when the outside temperature ranges from -20°C to + 50°C.

Please refer to the FIAT or RENAULT manual for instructions on how to use the fast tyre repair kit.

There is an expiry date on the sealant. Therefore, please note this date. It is not possible to guarantee that the tyre repair kit will function properly if the sealant has expired.

4.7 Changing a tyre

The car jack (not included in the scope of delivery) may only be inserted in the appropriate mounting holes! If the car jack is attached in other places, this may cause damage to the vehicle or even accidents if the vehicle falls off the jack.

The car jack is to be used only for changing tyres. It may never be used when working underneath the vehicle! Danger of death!

The levelling supports may not be used as a car jack!

When changing a tyre, please also observe the vehicle manufacturer‘s operating instructions.

Changing a tyre

- Place a firm base, such as a piece of wood, underneath the car jack if the vehicle is on soft ground.
- Insert the car jack into the appropriate mounting holes.
- Turn the wheel spanner a few times to loosen the wheel mounting screws, but do not remove them.
- Jack up the vehicle until the wheel is 2 -3 cm above the ground.
- Remove the wheel mounting screws and lift off the tyre.
- Place the spare tyre (not included in the scope of delivery) on the wheel hub and align it.
- Screw the bolts on and tighten them in a diagonal sequence.
- Lower the car jack and remove it.
- Tighten the wheel mounting screws evenly with the wheel spanner. Please refer to the operating instructions for the base vehicle for the specified value of the tightening torque of the wheel mounting screws.
- Place the tyre you have removed in the (possibly existing) spare tyre holder and then shut the holder.

Chapter 5: Exterior Structure

5.1 Ventilation

The following applies for ventilation:
Ventilation is important if you want to feel comfortable in your motor home. No-draught ventilation has been integrated above the driving unit in your motor home. The roof lights ensure ventilation. Never interfere with the way in which they operate.

Appropriate covers can be used to close the ventilation of the refrigerator, provided it does not run on gas.

⚠ Under no circumstances may the safety ventilation be shut, not even slightly.

☞ Note the information given on the covers. They may only be used when the refrigerator is operated electrically in winter. For more information, please refer to the refrigerator manufacturer‘s operating instructions.

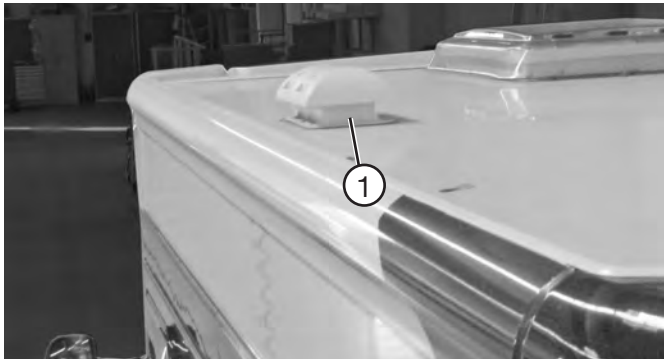
☞ Watery vapour is produced while cooking, from wet clothes, etc. Every person transpires up to 35 g of water per hour. Therefore, depending on the relative humidity, the windows and skylights must be opened for further ventilation (see also “Operating in Winter“).

Refrigerator

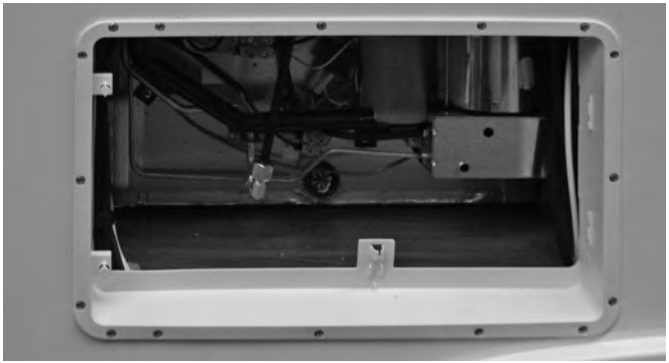
Grates supply the refrigerator with fresh air from outside to ensure sufficient refrigerating capacity. The grate for fresh air intake is on the outside wall of the vehicle. The ventilation grill is located on the roof.

⚠ Danger! You can suffocate if the ventilation openings are blocked! Never block ventilation openings.

☞ Apply special covers when operating the motor home in winter. These covers can be purchased from your dealer.



Ventilation for the refrigerator ① on the roof of the vehicle



We recommend that you remove the ventilation grate if the outside temperature is very high. This allows more air to permeate to the refrigerator, intensifying refrigeration. The ventilation grids must remain firmly mounted while driving or when it is raining.

Removing the ventilation grate

- Push the locks as far up as they will go.
- Carefully lift open the ventilation grid on the left-hand side
- Then pull the right-hand side out of the bracket.

Heating

The heating system is supplied with fresh air from outside ①. This ventilation flap also permits exhaust air from the system to escape.

⚠ Blocked ventilation openings can lead to suffocation! Therefore, never block ventilation openings. When operating in winter ensure that the chimney outlet is not blocked.

5.2 Opening and closing doors and flaps

Keys to the vehicle

The following keys are delivered with the motor home:

- two keys to fit the following locks on the base vehicle:
  - driver‘s and passenger‘s doors
  - a code card.

☞ Note the manufacturer‘s operating instructions for the basic vehicle.

- two keys that fit the following locks on the structure:
  - entrance door
  - service flaps
  - toilet flaps
  - fresh water filler neck,
  - gas-bottle container flap,
  - storage locker, stowage flap (model-specific).

☞ In addition, a self-adhesive aluminium plate is included in delivery, engraved with the key number of the base vehicle.

Entrance door external

Opening

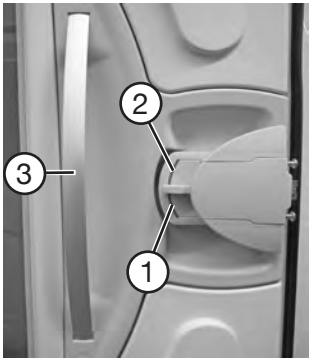
- Use key to unlock door.
- Pull on door handle.
- Open door.

Closing

- Close door.
- Turn key until you hear the bolt lock into place.
- Turn key back to verticle position and pull it out.

To prevent damage to locks and door frames, the inner door handle must be positioned horizontally and not slanted upwards.

The entrance door is your escape route in an emergency. Never barricade the door from the outside!



Entrance door internal

Opening

- Push the bolt down (green section ①).

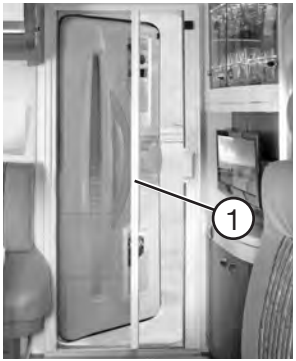
Closing

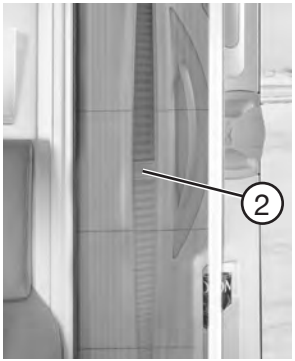
- Pull the handle ③ of the door closed until it locks into place.

Locking

- Push the bolt up (red section ②).

This allows a door which has been locked from the outside to be opened from the inside.





Insect screen (plissé) ①

- Carefully open and close the insect screen plissé by guiding it along the guide rail.

The insect screen plissé must be closed first before closing the entrance door!

Entrance door plissé ②

- Slowly close the entrance door plissé by pulling the two guide rails towards each other from the top and the bottom until they meet in the middle.

Never close the fly screen by pulling one guide rail all the way to the other end.

The maximum load for the external storage locker is 150 kg.

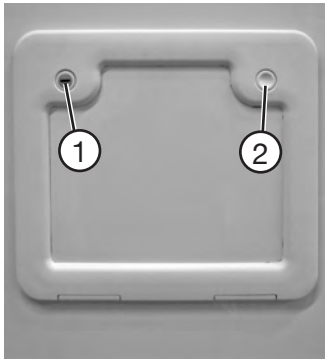
Garage flap/ Stowage flap (model-specific)

To open

- Unlatch both locks with the key. The handles will be slightly projected.
- Turn the handle to the left.
- Swing the flap up.

To close

- Swing the flap shut.
- Turn the handle to the right until the flap is pulled into the seal.
- Latch both locks with the key and push the handles in until they click into place.



Toilet flap

To open

- Use key to unlock flap ①.
- Press both buttons (① and ②) and open flap.

To close

- Press flap until it locks into place (both sides).
- Use key to lock flap ①.

Gas-bottle Container Flap

⚠ The ventilation grill of the gas-bottle container flap must not be closed or covered.

To open

- Use the key to unlock the lock ①; the handle will jump out a little bit.
- Turn the handle to the left to open; this unlocks the flap, which can then be swung open

To close

- Turn the handle to the right; this pulls the flap into the seal.
- Place the key in the lock, push the handle in and lock the flap.

Locking devices for doors and flaps

The entrance door as well as some of the external flaps can be fastened using the locks on the outside wall of the mobile home.

Door locks ②

To lock

- Open the door all the way.
- Press the nose fastened to the door into the counterpart on the outside wall of the mobile home. Take care to ensure that it clicks firmly into place.

To unlock

- Pull the nose out of the counterpart.

Flap locks ③

- Open the gas-bottle container flap all the way.
- Lift open the locking device.
- Fit the nose of the locking device into the groove of the gasbottle container flap.

⚠ Doors and flaps must always be closed before driving.

Exterior socket

Opening

- Take hold of the bottom of the cover flap ① and pull it upwards.

Closing

- Push cover flap ① down until you hear it lock into place.

Exterior gas supply *

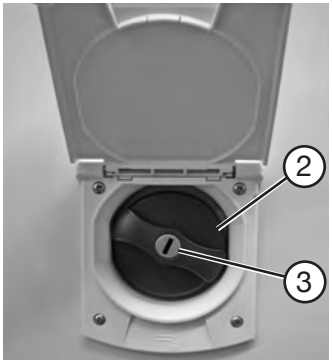
The external gas socket ② is used to provide equipment that requires gas, such as a gas barbecue or gas lamp, with gas outside the mobile home.

Opening

- Hold the flap ① by the latch and pull it up.

Closing

- Press the cover plate ① of the flap shut until you hear it lock into place.



Fresh water filler neck

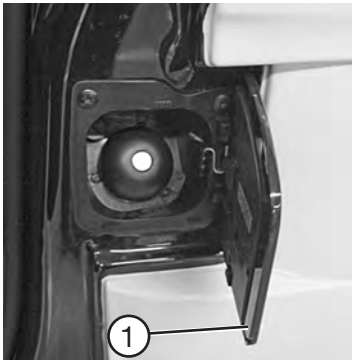
Opening

- Hold the flap by the latch ① and pull it up.
- Use key to unlock ③.
- Give the blue cap ② a strong turn counter-clockwise and remove it.

Closing

- Put the blue cap ② back on and turn it clockwise to shut it.
- Use key to lock ③.
- Hold the flap by the latch ① and close it until it clicks into place.

⚠ Never fill petrol into the fresh water tank.



Petrol filler neck

The black petrol cap is covered by a flap located on the left side of the vehicle behind the driver's door in the lower section of the B-pillar.

Opening

- Open the flap by placing a finger in the notch ① and pulling out/forwards. (the driver's door must be opened first on the Renault model).

Closing

- Push the flap until it locks.

☞ Please refer to the separate operating instructions from Fiat or Renault for information on how to operate the petrol cap.

5.3 Roof rail *

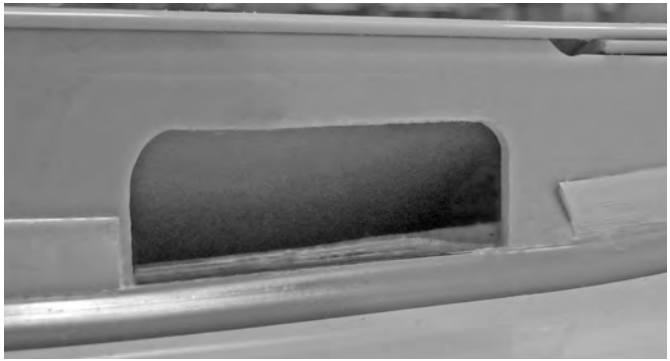
The following applies when loading the roof rail:

- Only store light items of luggage on the roof.
- Lash the roof load securely and ensure that it cannot slip or fall off.
- Do not overload the roof! The heavier the roof load, the worse the vehicle's performance.

The maximum total load for the roof rail is 50 kg.

- Observe the maximum permissible axle loads when loading.
- Add the measurements of the roof load to the height of the vehicle.
- Place a note with the overall height in a visible position in the driver's cabin to avoid having to calculate it when passing under bridges or through archways.

Only transport roof loads using an additional, suitable roof rack.



5.4 Roof Drains

Special drains have been mounted on the roof of vehicles with an alcove bed that drain water off the roof and down the side wall.

These drains must continuously be kept clean to prevent them from plugging up.

5.5 Bicycle carrier *

The motor home's handling when driving is significantly different when the bicycle carrier is in use. The driving speed should be adjusted accordingly to take this into consideration:

- The driver is responsible for the secure fastening of the bicycles. Even when unloaded and folded up the carrier must be secured using the clips provided.
- Ensure that the existing lighting equipment is not completely or partially obscured by any loads.

The maximum permissible load for the bicycle carrier is 50 kg.

5.6 Velo eBike Carrier *

The driver of the vehicle is responsible for ensuring that the load has been fastened securely. This means that the bicycles must be doubly secured on the carrier.

To secure

- The clip ① must be attached to the bicycle as high as possible. We recommend that you use, for example, the saddle pillar or the steering rod.
- The wheels are strapped to the lower attachments ②. A tension belt can be used as an additional means of securing this load.

- Always maintain the permissible load-carrying capacity of the carrier (75 kg) and never overload it.
- If the rear carrier is fully loaded, and depending on how much the load juts out over it, the load on the rear axle will be increased while it will be decreased on the front axle. This can change the driving performance and steering and brake response of the vehicle.
- The carrier reduces the rear ramp angle of the vehicle. Therefore, the vehicle may touch the ground when driving over uneven terrain.
- The rear licence plate must be centrally mounted between the carrier's licence plate lights.
- Do not use a high-pressure cleaner to clean the carrier as this may damage the surface protection.
- Use only original spare parts and accessories that have been certified by SAWIKO in order to maintain your rights from the guarantee.
- Simultaneous use of the eBike carrier and the tow-bar is not permitted. Only one system may be mounted at a time: either the eBike carrier or the tow-bar.

Ensure that the electric connection via the 13-pole plug is not broken when the eBike carrier is folded up; otherwise, the illumination devices will not function properly.

For further information, please refer to the manufacturer's enclosed operating instructions and store them together with the documents for this vehicle. These operating instructions are an important document that enable you to take the carrier with you. Should an inspection be carried out, this document must be shown to the authorities upon request.

5.7 Sun awning *

As option, your motor home can be fitted with an awning attached to the roof. In models with an alcove bed, the awning is attached to the side wall.

- An awning offers protection from the sun, not against the elements.
- Do not place people or obstacles in the extension/retraction area of the awning.
- The awning winding mechanism is fitted with a mechanical block control to limit the extent to which it can be extended. Never attempt to exceed the block control by force.
- Always support the awning with the integrated struts when extended.
- The awning must always be completely retracted and secured before driving.

Extending

- Insert the hook on the crank into the grommet on the winding mechanism.
- Hold the crank with one hand on the upper twist grip and the other on the lower twist grip. During the operating procedure gently pull the crank towards you and hold it as vertically in the grommet as possible.
- Turn the connecting rod clockwise until the awning has been rolled out about 1 m.
- Unfold the telescopic rods on the inside of the drop tube and use them to support the awning.
- Only then should you roll out the awning to the desired position.
- Remove the crank.

Retracting

- Insert the hook on the crank into the grommet on the winding mechanism.
- Turn the connecting rod counter-clockwise until the awning has been rolled in except for the last meter.
- Retract the telescopic rods, fold them up and secure them.
- Only then should you roll in the awning completely and secure it.
- Remove the crank and store it in the vehicle.

If the canvas is slack when extended, retract the awning until the canvas is tightly stretched again.

Please refer also to the manufacturer's separate operating instructions.

Chapter 6: Interior Structure

6.1 Opening and closing doors and flaps

⚠ Close all flaps and doors properly before driving. This avoids them opening accidentally while driving and objects falling out.

Stowage cabinets

To open

- Slightly tilt the handle and then pull on it until the flap opens.

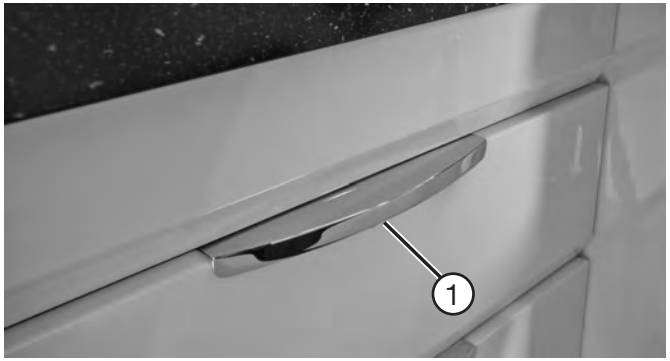
To close

- Press the flap shut until you can feel it close and lock.

⚠ Store only light objects in the upper stowage cabinets.

Furniture doors with handle

- Push the handle to open and shut the door.



Drawers with a pressure lock

To open

- Press the bottom of the pushbutton ① to unlock the drawer.
- Pull on the handle until the pull-out opens.

To close

- Use the handle to press the flap shut until you can feel it lock into place.

Doors with push locks

To open

- Depress the push lock until the knob pops out.
- Carefully pull the knob and open the door.

To close

- Push the door closed using the knob.
- Depress the push lock until the knob locks into place and the door is fastened.

Furniture doors with a locking mechanism

(Mirror cabinets, washroom)

To open

- Open the door of the mirror cabinet by pressing the lower edge from behind.

To close

- Push the door of the mirror cabinet back to its original position until it noticeably locks itself into place.

Bar in the entrance area

To open

- Pull on the handle and swing the door outwards.

To close

- Use the handle to press the flap shut until you can feel it lock into place.

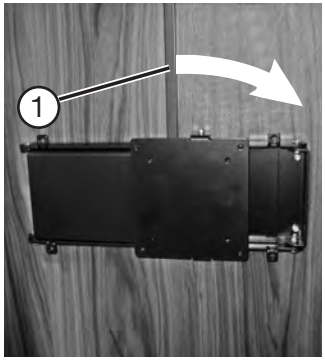
Sliding doors

To open

- Hold the sliding doors by the frame and push outward.

To close

- Grasp the frame of the doors and push them closed until they click into place.

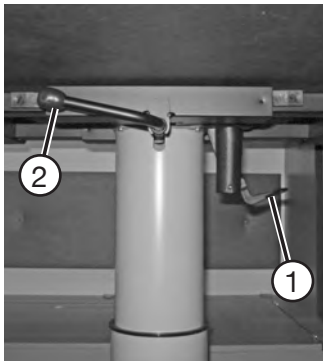


6.2 TV mount for flat screen TV *

- To fold out the mount, release the lock by pushing the lever ① to the right.
- To fold in the mount, push it back to its original position until it is noticeably locked into place.

⚠ Lock the media unit or TV holder before driving.

⚠ The mounted TV may not weigh more than 8 kg. When driving, we recommend that you remove the TV from the mount and store it securely.



6.3 Tables

Luxury Living Room Table,*

The luxury living room table can be lowered as well as moved.

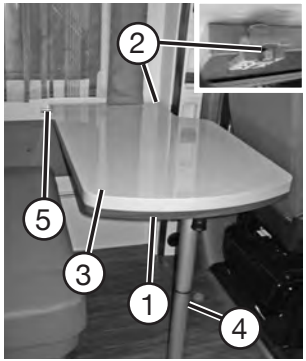
To shift

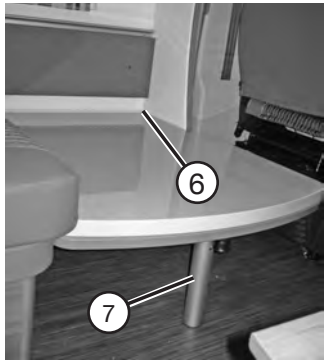
- Release the lever ① to enable you to move the table top to any position on the pillar.
- Push the lever ① back into place to lock the table into the desired position.

To lower

- Pull the lever ② all the way to the other side to unlock the table.
- Use both hands to push the table top down.
- Pull the lever ② back into its original position to lock the table into the desired position.

To lower the table all the way to the floor, the table top must be positioned in such a way that it cannot rest on the seat chests.



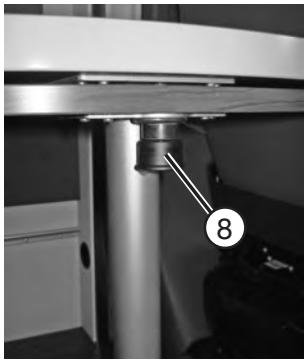


Hanging table

When lowered, the hanging table can be used as a base frame for the bed.

To lower

- Fully retract the lower, pivotable table top ① until it locks into place by itself.
- Press the lock ② down.
- Raise the front end of the table top ③ by approx. 30°.
- Pull down the lower section of the table foot ④ and remove it.
- Pull the table top out of the upper wall rail ⑤.



- Hook the table top into the lower wall bracket ⑥ . The lock must move up to lock into place and place the table on the shortened leg ⑦.

To swivel out

- Pull the locking pin ⑧ down and then let go.
- Swivel the lower table top ① to the desired position.

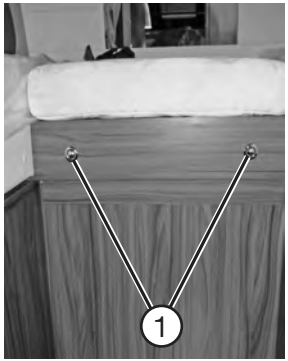
The hanging table must be in the lower position before the alcove bed is lowered in order to avoid a collision between the alcove bed and the table.

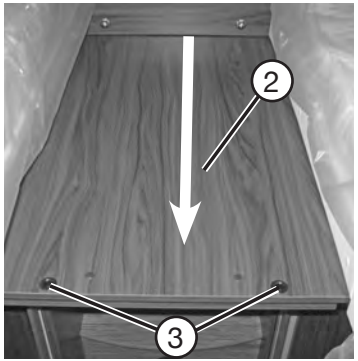
6.4 Bed conversion *

The seating arrangements can be rearranged as beds for sleeping. The optional additional cushion is required for this (this is not possible in models with alcove beds).

To rearrange

- Remove all cushions.
- Lower the table. (see 6.3 Tables).
- The lower table top must be swung out and then rested on the supporting edge of the side seat opposite.

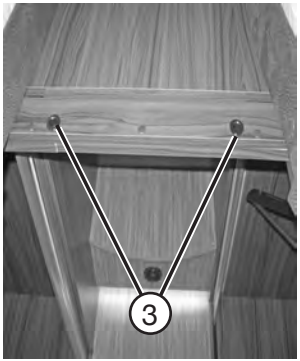




Widening the beds Fiat Drive *

In those models with individual beds above the rear garage, the two beds can be joined by means of an extendable extension.

- Open both pushlocks ① .
- Pull out the extension ② as far as it will go.
- Shut both pushlocks ① to lock the extension into place.
- Hang the ladder in the corresponding holding fixtures ③ (the ladder is located in the external storage locker when your motor home is delivered).
- Insert the additional cushion ④.



Widening the beds Renault Premium Van

- Release the extension from the magnet and pull it along the guide rail. Unfold the movable piece ① by the notch ② into a horizontal position and push it back along the guide rail.
- Hang the ladder ⑤ in the designated fixtures ③.
- Insert the cushion ④.

Carry out this procedure in reverse to put everything back in place, taking care to ensure that the extension clicks back on to the magnet.

Before driving, put bed extensions back in their original position.

Alcove berth (model-specific)

Depending on the model, your vehicle may be equipped with an alcove berth as an additional sleeping area.

Preparation

- If necessary, unhinge the table and lower it **(please refer to the chapter on tables).**

- Place the key in the alcove bed panel and turn it to the right to “on”.
- Use the arrow down to lower the alcove bed as far as it will go.

- Hang the ladder ① **(located in the garage when your camper is delivered).**
- When sleeping, clip the safety nets **(located underneath the mattress)** into place in the attachments on the ceiling.

- The maximum load for the alcove berth is approx. 200 kg.
- Never use the alcove berth without setting up the safety mesh.
- Never leave children unminded in the alcove berth.
- Before driving, the alcove bed must be in its storage position and locked.
- Ensure that the lights attached underneath the alcove berth are turned off.

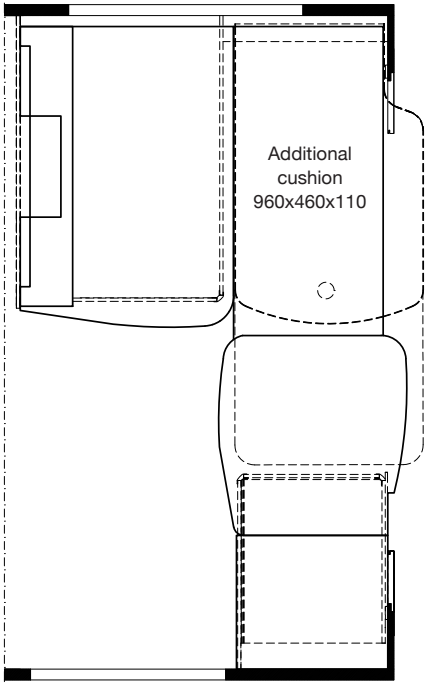
Please also note the manufacturer's separately enclosed operating instructions.

The stowage cabinets under the alcove bed should only be loaded lightly. The more weight stowed in these cabinets, the harder it is for the alcove bed motor to run.

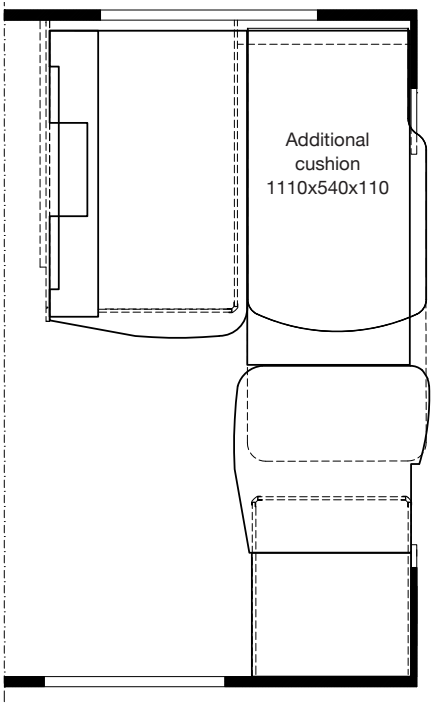
6.5 Cushion arrangements

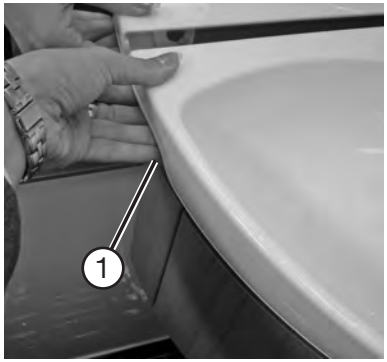
None of the motor homes with alcove beds can be converted, because there is not enough free space when the alcove bed has been lowered.

Rearranging the cushions
Renault 65 GE Premium Van



Rearranging the cushions
Fiat 70 GE Premium Drive





6.6 Washroom with movable basin for showering (model-specific)

Using the shower

- Pull the handle ① on the washbasin along the rail towards the Porta Potti.
- Then release the pushbutton of the retaining strap and fold out the partition towards the mirror

⚠ When driving, the shower partition must be fastened using the retaining strap and the washbasin must noticeably be locked into its original position.

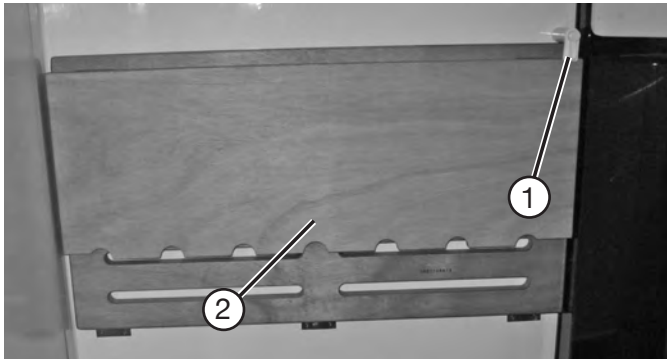
Bathroom (model-specific)

In Hobby's bathroom concept, the washroom can be joined together with the separate shower or changing room.

- Open the washroom door as far as possible so that the iron core ① of the locking mechanism attaches itself to the magnet ② on the opposite side.

⚠ When driving, the washroom door must always be locked.

When driving, the doors of the separate shower must be fastened using the retaining strap.

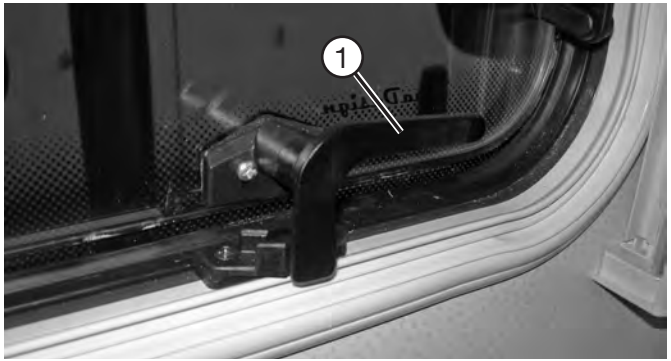


Folding seat in the shower (optional extra)

As an option, the bathroom can be fitted with a folding seat in the shower.

- Unlock ① the seat by turning it to a horizontal position.
- Fold the seat down and fit the lower surface ② into the groove provided for this purpose.

Before driving, the folding seat must be locked into its original position.



6.7 Windows

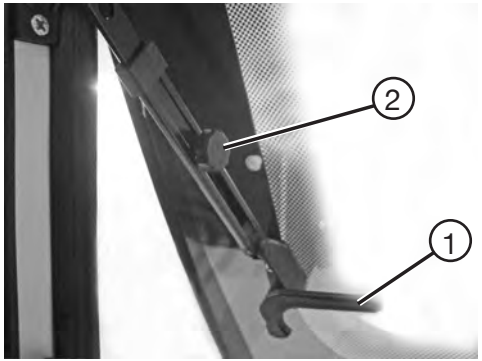
Knockout windows with locking hooks

Opening

- Turn the latch ① by 90°.
- Press the window latch outwards until you hear it click.The window will automatically remain in this position. The width of the opening is adjustable in several stages.

Closing

- Raise the window slightly so that the hook unlocks.
- Close the window.
- Turn the latch to the original position so that it clasps behind the brackets and pull the pane into the seal.



Fully adjustable window stays

To open

- Turn all latches ① by 90°.
- Press the window latch outwards with your hand until it is open as far as you would like. Then use your other hand to tighten the turn screw ② until you feel the resistance and the window is held in place.

To close

- Loosen the turn screw ② to allow you to shut the window.
- Turn all latches back to their original position so that they clasp behind the brackets and pull the pane into the seal.

Combined sunshade and insect screen

Sunshades and insect screens are integrated in the window from and fully adjustable.

To close

- Move the handle for the sunshade or the latch for the insect screen slowly and evenly to the desired position.

To open

- Push the shade up slowly and evenly.

To combine

- Pull the sunshade down slowly and evenly, then pull the insect screen down to the desired position.

⚠ To avoid consequential damage, leave the shades open when the motor home is not in use.

Skylight
(Acrylic glass frames cannot be supplied if the roof window is above an alcove bed.)

The skylight cannot be opened. It is fitted with an integral dimming shade which can be drawn as required by pulling it.

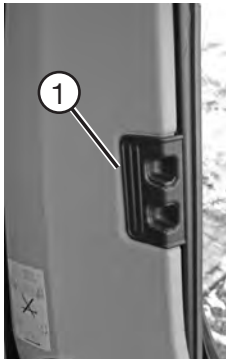
If the vehicle is not in use for a longer period of time, the sun shade must be opened to prevent heat from building up.

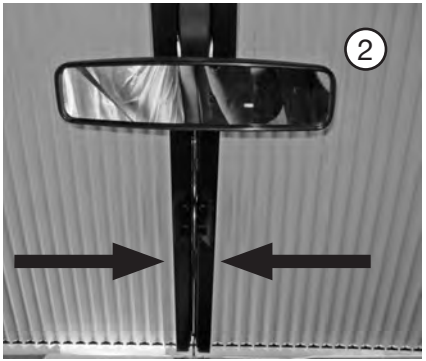
6.8 Dimming system for driver's cabin

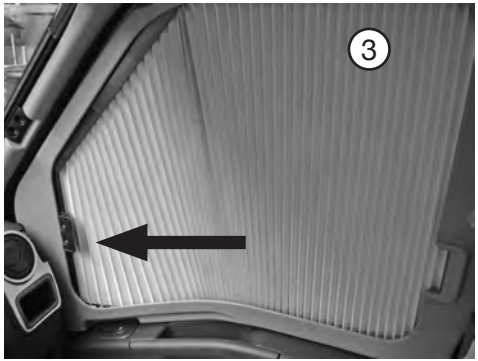
The dimming shades may only be drawn when the vehicle is standing and the motor has been turned off. Before starting your drive, you must fold up the entire system and lock it.

Open the dimming system whenever you are not using your motor home, as otherwise it will be permanently damaged by the effects of heat and UV rays.

The dimming system may never be used as a sunshade or closed while driving.







Front system ②

- Press the locks ① together to open the locking mechanism.
- Press the clasp together in the middle. The magnetic lock will automatically lock.

Side system ③

- Press the locks ① together to open the locking mechanism.
- Pull the handle as far as it will go. The blinds will automati cally be locked into place; this is fully adjustable.

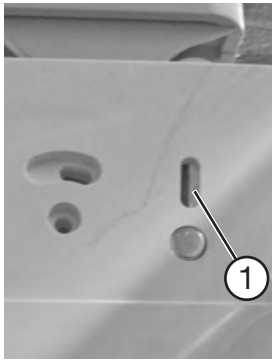
6.9 Skylight

Safety instructions

- Never open the skylight in strong winds/rain/hail, etc. or if the temperature outside is below -20°C!
- Do not use force to open the roof skylight when covered by ice or snow as this could break the hinges and opening mechanism.
- Remove snow, ice or excessive dirt before opening. Ensure there is sufficient room before opening the skylight under trees, in garages, etc.
- Do not stand on the skylight.
- Close and bolt the skylight before driving. Open the insect screen and pleated material (resting position).
- If the sunlight is very strong, pull the sunshade only 3/4 closed, otherwise there is a danger of heat build-up.

The vents for ventilation must always remain open! Never shut or cover up these vents!

Before driving, ensure that the skylight is securely bolted.



Large roof bonnet

Opening

- Reach into the opening of the crank bag and fold the crank to the user position by pulling it out. Turn the crank clockwise to open the light to the desired position. When you have reached the maximum opening angle you will feel the resistance.

Closing

- Turn the crank counter-clockwise until the light is closed and you feel the resistance. The control pin ① is visible when the skylight is shut. Then turn the crank only so far until you can fold it into the crank bag. To be locked securely, the crank must be folded into the crank bag.

Small roof bonnet

Opening

- This roof bonnet can be opened in the opposite direction to traffic. Press the locking knob ① and use the adjusting lever to move the roof bonnet to the desired position.

Closing

- Guide the adjusting lever along the guide rail and close the roof bonnet. The bonnet will lock when the lever hooks into place behind the locking knob ① .

Insect screens and shades (plissés)

Both plissés are fully adjustable by sliding them horizontally from side to side.

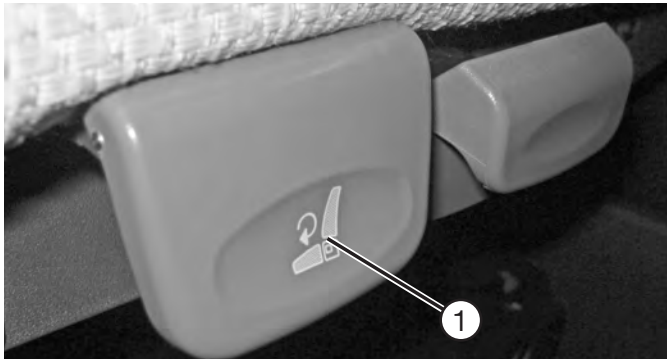
6.10 Pivoting seats in the driver‘s cab

All of the motor homes have pivoting driver's and passenger's seats, which can be used to extend the number of seats available in the superstructure. To operate these pivoting seats, please refer to the operating instructions for the base vehicle.

- Before driving turn all swivelling seats in to face in the driving direction and lock them into place.
- Leave the seats locked to face in the driving direction while driving. Do not swivel them.
- When the vehicle is stationary: when swivelling the driver’s seat make sure that the handbrake is not released by accident.

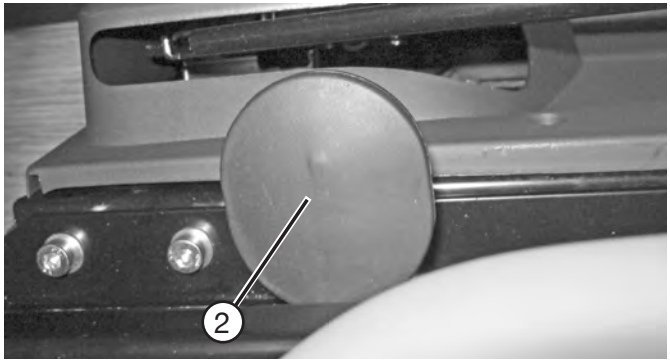
Swivelling seats

- Put the armrests up.
- Move the seat to the middle position.
- Release the lever to swivel the seat. The seat will be released from the locking position.
- Push the seat belt buckle down to avoid damaging it.
- Swivel the seat to the desired position.



Renault Premium Van

- The lever ① for turning the seat is located on the front edge of the seats in the driver's cab. Tilt the lever upwards and turn the seat.



Fiat Premium Drive

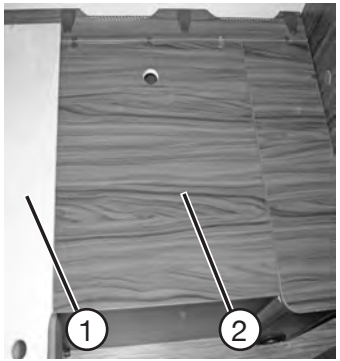
- The lever ② for turning the seat is located on the outer edge of the seats in the driver's cab. Push the lever forwards and turn the seat.

6.11 Construction of the seats

Cushion fastenings

The seat and back cushions are held in place by an anti-slip mat.

Ensure that the seat cushions and backrests are fastened securely and correctly.



Converting the L-shaped seating arrangement *

To use the outer seats in models with an L-shaped seating arrangement, it must be converted before you drive.

- Remove the seat and back cushions.
- Fold the lid ① of the seating bench up.
- Pull the entire seating bench ② up and out.
- Lower the lid of the seating bench, replace the seat and back cushions.

6.12 Seatbelts in the motor home

The seats in the seating arrangements that face oncoming traffic have been fitted with safety belts.

⚠ Please note the overview of the seating arrangements for your vehicle. Certain seats may not be used while driving!

Buckling the seatbelt

Do not twist the seatbelt.

- Grasp the tongue and insert it in the lock of the seatbelt until you hear it snap shut.
- Guide the upper part of the seatbelt over your shoulder and diagonally across your chest.
- The lower part of the seatbelt fits across your hips.

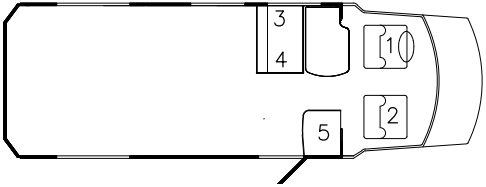
Unbuckling the seatbelt

- Press the button on the lock of the seatbelt to unlock the tongue.

⚠
- Fasten seat belts before driving and keep them fastened while driving.
- Do not damage or jam the seatbelts. Damaged seatbelts should be replaced by an authorised workshop.
- Do not alter the seatbelt fixings; the automatic retraction system or the buckles.
- Only use each seatbelt for one adult. Do not fasten objects and people using only one seatbelt.
- Seatbelts alone are not suitable for persons under 150 cm tall. In such cases use additional restraining equipment.
- Replace seatbelts after an accident.
- Do not twist the seatbelt; it should fit closely to your body.

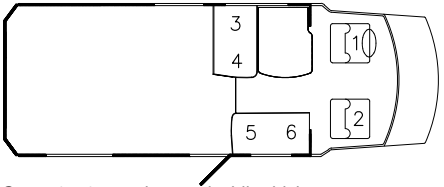
6.13 Overview of the seating arrangements

Renault 65 GE Premium Van



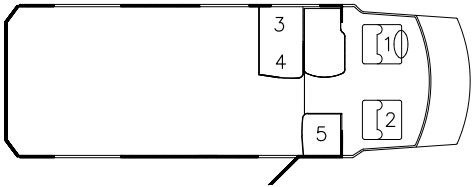
Seats 1 - 4: may be used while driving.
Seat 5: must not be used while driving.

Fiat 65 HFL Premium Drive



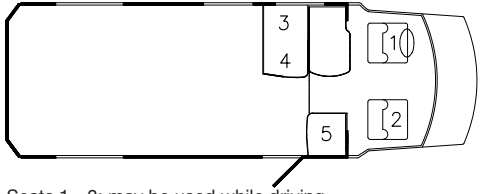
Seats 1 - 4: may be used while driving.
Seats 5 - 6: must not be used while driving.

Fiat 70 GE Premium Drive



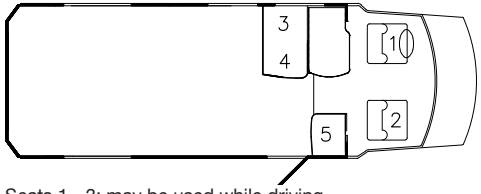
Seats 1 - 4: may be used while driving.
Seat 5: must not be used while driving.

Fiat 70 HGE Premium Drive



Seats 1 - 3: may be used while driving
Seat 4: may be used while driving if the permissible maximum weight = 3650kg / 4250kg / 4400kg
Seat 5: must not be used while driving.

Fiat 70 HQ Premium Drive



Seats 1 - 3: may be used while driving
Seat 4: may be used while driving if the permissible maximum weight = 3650kg / 4250kg / 4400kg
Seat 5: must not be used while driving.

Chapter 7: Electrical Installations

7.1 Safety instructions

The installation of electrical devices in HOBBY's motor homes has been carried out in accordance with the valid regulations

- Do not remove the signs on electrical components giving safety instructions or danger warnings.
- Do not use the installation compartments for the caravan battery, on-board control panel, battery charger and 230 V connector box as additional storage room.
- Smoking and naked flame are forbidden when checking electrical equipment.
- Only authorised and experienced workshops may carry out electrical repairs.
- Inexpert handling of the vehicle‘s electrical system may endanger your own life as well as that of others.
- To connect to an external 230 V mains connection, use only a weather-proof, 3-wire extension cord with a CEE plug and connector.

7.2 Elements of the electrical system

Advice and instructions

Important

- Any changes to the electrical installations may only be carried out by a professional electrician.
- Disconnect the battery and switch off the 230V mains before carrying out any maintenance work.

Batteries

- Please observe the battery manufacturer’s operating instructions.
- The acid in the battery is poisonous and corrosive. Avoid contact with eyes and skin.
- The completely discharged battery must be recharged for at least 10 hours. The battery may be damaged if it has been discharged for more than 8 weeks.
- Avoid total discharge since this significantly reduces the performance capacity and service life of the batteries.
- Check the level of the battery fluid regularly (acid batteries); AGM-batteries require no maintenance, but must be continuously recharged.
- Check that the clamps have been properly fitted and, if necessary, remove any layers of oxide.

- Unclamp the battery circuit breaker if the ancillary battery is not being used for a long period of time (more than 1-2 months). Even if the battery circuit breaker is interrupted, the battery can still be charged by the battery charger (conservation charging).
- Should the consumer battery be removed, isolate the plus pole (to prevent short circuits when turning on the motor).

Battery charger

- The charger's capacity is 360 W.
- The charger functions in accordance with IU0U1 charging technology.
- In the case of misuse the guarantee and manufacturer's liability will no longer apply.
- Do not plug up the ventilation and ensure that you have adequate ventilation.

Tank probes

The probe with rods measures the contents of the fresh and waste water tanks.

- To avoid incrustations, particularly in the waste water tank, never let the water in the tanks stand for too long.
- Flush the tanks regularly.

230V automatic circuit breaker with an earth leakage circuit breaker

The 230V automatic circuit breaker supplies and protects the 230V devices.

- To switch off the 230V power supply in the entire system, set the 230V automatic circuit breaker to "0" (OFF).

Fuses

- Only replace defective fuses after the cause of the defect has been remedied by a professional electrician.
- The new fuse must have the same amperage as the old one.

Controlpanel

Renault

Fiat (Drive)

Functions of the main switch

- After initially connecting the motor home to the 230 V mains, you must press either the main switch (**or Renault:** any control key) in order to activate all of the 12 V electrical devices and the 230 V electrical devices that are switched by the system (Combi 6 E*, air-conditioning*).
- Once the system is in operation, press the main switch briefly to turn all of the lights off. All of the 12 V steady electrical devices (e.g. water supply, refrigerator control, heat blower) remain activated. The devices that were previously switched on are stored in the system; pressing on the main switch reactivates them. This also resets the degree to which those lights were dimmed that can be regulated.
- **Renault:** Pressing the main switch for at least four seconds while the system is switched on will turn off not only the presently activated devices, but also the entire 12 V system.
- If there should be a power failure, the system will remember whether the main switch was on or off. As soon as the power is back on, the main switch will automatically switch itself back on. Electrical devices that continuously use current, such as the heating, will then begin to operate again.

If the vehicle's motor is running, the refrigerator will operate automatically on 12V, i.e. it is not necessary to press the main switch. In this case, the selector switch for the refrigerator must be set to 12V operation. All other 12V electrical devices will only operate on the ancillary battery if the main switch has been activated.

Illuminated Wall Cabinets and Ceiling Lamp

- Briefly press the key to switch each lamp on and off. Press longer on the key to regulate how brightly you want the

lights to shine. The brightness you set will be saved; when the lights are switched on again, the brightness you originally set will also be switched on again. If the system's power supply is interrupted, the wall light will shine full strength the first time you switch it on.

Key Memory

- This key is used to save and recall the state of individual lights. Press briefly on this key to recall the last saved state of all switchable 12 V lights. Press longer on this key to save the lighting state of a lamp. This key is not used to save the state of the 230 V electrical devices (e.g. hot-air heating).

Entrance light

- Press this key to switch the entrance light on and off. It is not possible to switch this light on when the motor is running. The light will turn off automatically when the motor is switched on.

The entrance light must be switched off when the motor home is on the road.

Kitchen light

- Briefly press the key to switch the kitchen lamp on and off.

Lighting atmosphere 1, 2 and 3

Renault

- **1:** Switches light strips on wall cabinets on and off.
- **2:** Switches reading lamp in seating arrangement and indirect lighting in the rear on and off.
- **3:** Switches showcase and floor lighting on and off; the latter can also be dimmed.

Fiat Drive

- **1:** switches 1 + 2 + 3 (but not floor lighting; see **Remote control for kitchen 07-18**)

Electric power supply 1 and 2

Renault

- These are two additional possibilities for switching 230V devices on and off (e.g. Alde hot water heating system*).

Charging status of the battery

- Briefly press the key to shift to displaying the battery. An intelligent battery sensor is part of the vehicle's standard equipment.
  The menu enables you to see the recharging time, charging current, charging voltage and remaining time until the battery is discharged.

Radio switch

- Briefly press the key to switch the radio on and off.

Filling level indicator

- Briefly press the key to display the graph that shows you the level of the fresh and waste water tanks.

Back

Renault

- Briefly press the key to return to the previous menu item or to the main menu.

Fiat Drive

- You can only return to the previous menu item by turning the toggle/push-button switch backwards.

All of the vehicles are equipped with a program for measuring illumination. This program only runs if the power is connected; if previously activated, it is saved after a reset. All of the lights will be switched on. If a key is now pressed, the corresponding light will be switched on. After approx. 1 minu7te, all of the other lights will also be switched on provided no other key is pressed.

Renault

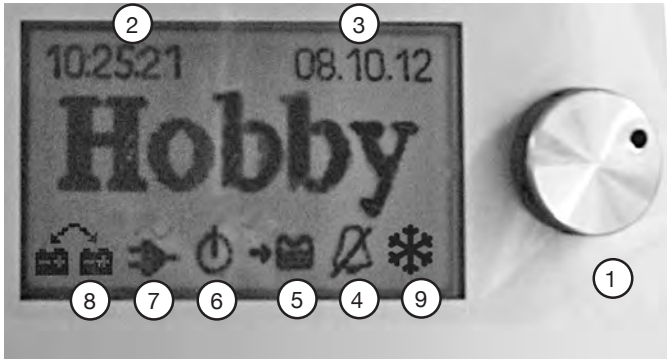
To switch on: Press power supply 1 + 2 and lighting atmosphere 1 somewhat longer.

To switch off: Press power supply 1 + 2 and entrance light somewhat longer.

Fiat Drive

To switch on: Press Illuminated Wall Cabinets, Ceiling Lamp, Kitchen light somewhat longer.

To switch off: Press Illuminated Wall Cabinets, Ceiling Lamp and lighting atmosphere 1 somewhat longer.



LCD display

Basic menu

The basic menu appears if you have not pressed a navigation key during the past 30 seconds (approximately). This menu is not illuminated. The time, date and alarm clock function are set in this menu.

Main display

① **Rotary switch**
Turn the switch to select a menu. Press it to shift to a submenu, in which you can enter changes.

② **Digital clock**
The current time is displayed in this field.

③ **Date display**
The current date is displayed in this field.

④ **Alarm clock**
This icon is use to activate the alarm clock. The example shows the alarm clock when it has been deactivated. When it is activated, there is no line through the icon.

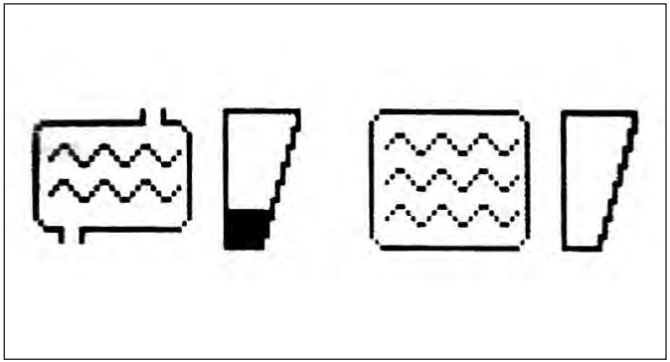
⑤ **Charging status of the ancillary battery**
If the arrow points towards the battery, it will be charged. If the arrow points away from the battery, it will be discharged.

⑥ **Main switch**
The icon for the main switch always appears when the system's 12V main switch has been switched on.

⑦ **Mains connection**
This icon appears if the motor home is connected to the 230V mains.

⑧ **Generator/Motor is running**
An icon will appear here if the motor home's motor has been started.

⑨ **Air conditioning***
The air conditioning icon only appears when the motor home has been fitted with an air conditioning system that is CI bus compatible and it is in operation. The basic functions of the air conditioning system can be controlled in a submenu using the control dial and keys. Various operating states can be displayed.



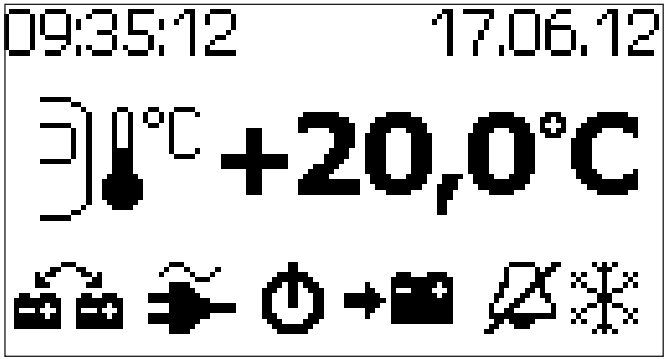
Level of the tank

- After turning once to the right or left, the menu for displaying the level of the fresh and waste water tanks appears.

Align the vehicle horizontally to obtain a meaningful result from the filling level indicator.

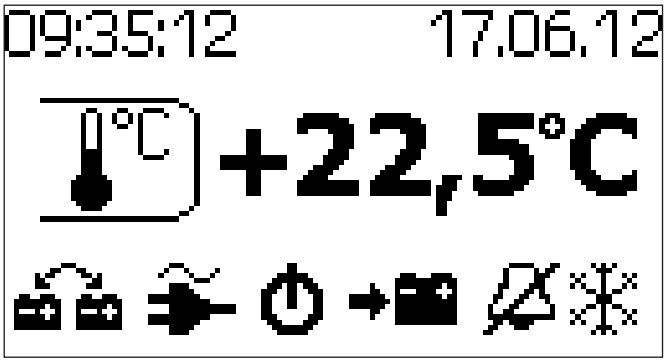
Temperature 12V

- If your vehicle has a 12V connection, the temperature will be displayed. Inside temperature (above) and outside temperature (below).
- The display is shown in increments of 0.5° C.



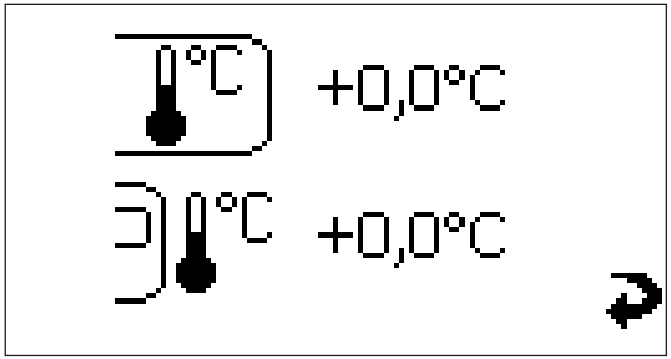
Outside temperature

- After once again turning to the right, the menu for displaying the outside temperature appears. The outside temperature sensor is located underneath the vehicle near the entrance step.



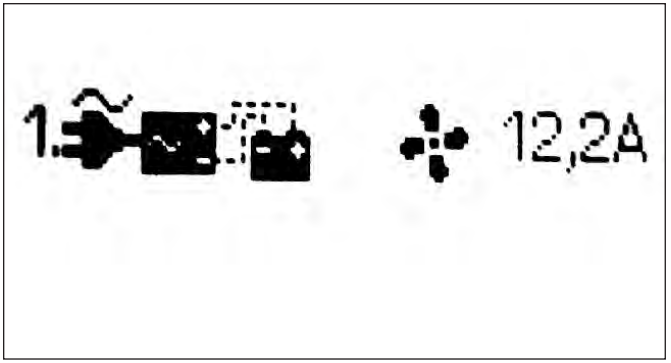
Inside temperature

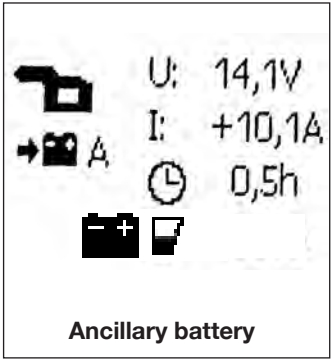
- After once again turning to the right, the menu for displaying the inside temperature appears.
- The display is shown in increments of 0.5° C.



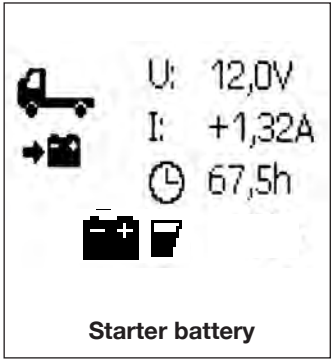
Calibrating the temperature
It is possible to calibrate the indoor and outdoor temperatures shown, as temperature effects on the sensors may lead to a deviation between the temperature displayed and the actual temperature.

- To calibrate the displayed temperatures, please switch to the temperature display. It is irrelevant whether the indoor or the outdoor temperature is displayed.
- Press the rotary/selector switch for several seconds. The system will now switch automatically to calibration mode.
- Switch to the desired area (indoor or outdoor) by turning the selector switch. Press briefly on the switch to select the area.
- You can now increase or decrease the temperature shown by up to +-7°C in steps of 1°C. When the desired value has been set, quit the menu item by pressing briefly on the selector switch.
- Quit the calibration menu by using the selector switch to select the Return icon. The changed value is now shown on the temperature display.





Ancillary battery



Starter battery

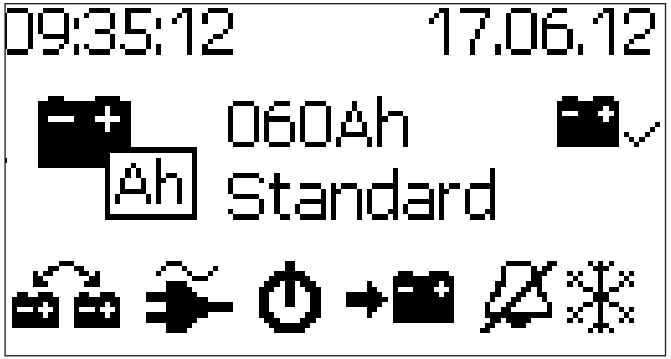
Battery charging

After the type and capacity of the battery have been set and it has been calibrated, the battery sensor permanently monitors the status of the batteries (starter/ancillary battery).
The intelligent battery sensor is connected directly to the negative terminal on the ancillary battery.

Battery charging function

230V voltage applied and charger has been activated for sensor control.
The fan can be switched on and off in this menu; the illustration shows the fan when it is switched on.

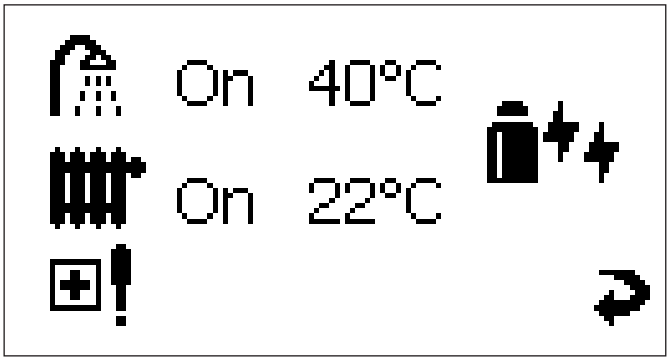
These menus show
- the charging voltage (U)
- the charging current (I)
- the remaining time until discharge, dependent on the cap city and the actual flow (current)
- as well as the charging status of the batteries (1/2 or 2/3).



Setting the battery type

The type and capacity of the battery have been set by the manufacturer. If the type of battery is changed, these settings must be adjusted accordingly.

To reach this part of the menu, go to the "Loading the Battery" menu and press the button for approx. 2 seconds.



Hot-air heating (only Fiat Drive)

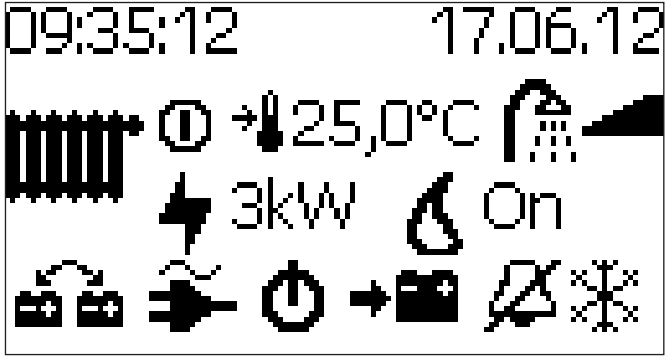
Turn the rotary switch to access the heating menu. This is where you can set the hot water temperature as well as the temperature desired inside the mobile home **(see also Chapter 10.2).**

Air conditioning *

The following functions for the air-conditioning system can be set on the control unit:

- On/Off
- Cool Mode: cooling and ventilation
  Cool Low / Cool / Cool High
- Fan Mode: ventilation only
  Fan Low / Fan High
- Dry: heating function

The aforementioned functions are only available for air conditioning systems that are CI bus compatible.



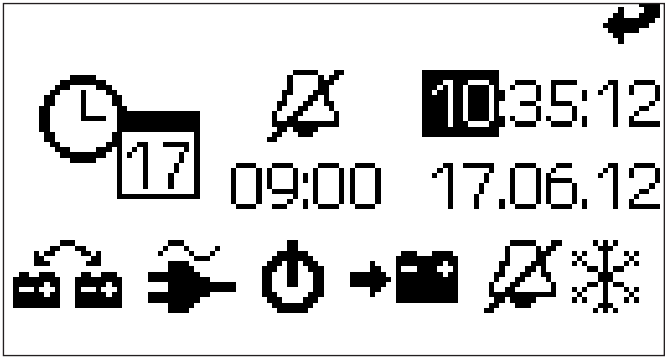
Alde hot water heating system (radiator icon)

The optional Alde hot-water heating system can be controlled using its own control unit or the LCD control unit.

Settings:

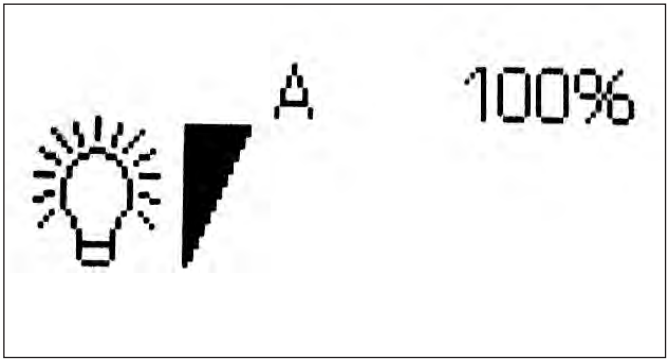
- Temperature: in steps of 0.5° from +5°C to +30°C
- Shower icon: short-term increase in the amount of hot water
- Electric heating (lightning flash): performance can be set to Off, 1kW, 2kW or 3kW
- Flame icon: heating with gas On / Off

- To quit the menu, switch to the Return icon and confirm your settings by pressing on the rotary knob. Only now will the changes be implemented by the heating system; after a brief delay, they will appear on the display.



Setting the time, alarm clock and date

- After pressing the menu button for a longer period of time (approx. 2 seconds) the menu for setting the current time, date, wake-up time and activating or deactivating the alarm clock appears.
- Within the menu's you move left or right by turning to the various setting value.



Plinth lighting (only Renault)
Press the lighting atmosphere 3 key to switch to the submenu for regulating the plinth lighting.

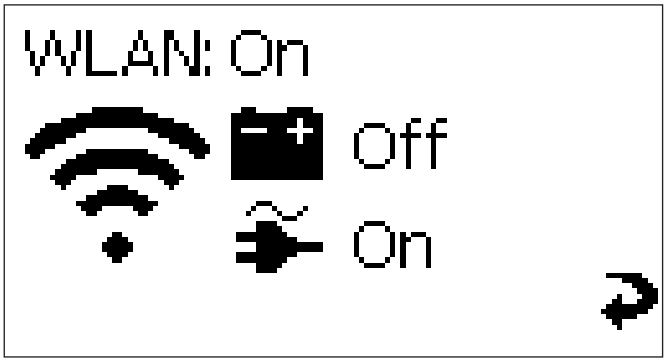
WLAN module* (only Fiat Drive)

Hobby's CI-Bus board management can link together up to 15 devices, enabling you to operate them using just one central control panel that shows their functions on its display. **(standard)**

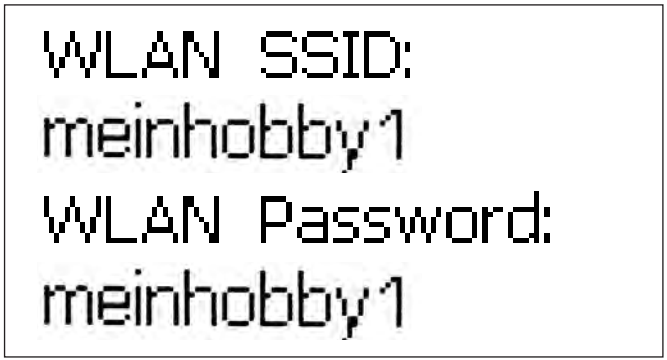
When coupled to a WLAN module, all of the functions on the LCD control panel can be wirelessly controlled via your smartphone, tablet or notebook.

After the main switch on the control panel has been switched on and all of the connections have been correctly attached, a WLAN network is set up that is recognized by all WLAN-enabled devices.

The SD card is also found on the WLAN module. The devices are updated on this card. This SD card cannot be written in Windows file format.



Turn the rotary encoder to access the WLAN menu. Power is supplied via the battery and/or via the 230V mains connection. The WLAN is ready as soon as **“WLAN: On”** appears after the module has been switched on.



Press the rotary encoder key to access the submenu in which the connection data for the WLAN network is displayed. (The menu on the left only shows example data.)

The WLAN-enabled device must be connected to the network and the password must be confirmed: under Settings, go to **“WLAN”** and select the network **“meinhobby1”** (in this example). Should this not be displayed immediately, you must first use the search/scan function.

Website Username:
hobby
Website Password:
caravan

Then select the network, enter the password and click on the **“Connect”** button to confirm. You can now call up the website http://192.168.0.1 in the Internet browser.

By continuing to turn and confirm the rotary encoder on the control panel, you will reach the Web server data, which is required to open the data in the Web browser.

Settings can be called up and changed in the browser on page 192.168.0.1/cfg.php:

Click on the **„Get“** button to call up the set values.

After making any changes, the changed values must be saved by clicking on the **„Set“** button.

These changes will take effect after approx. 2 minutes.

The name of the network and the password can be changed here. This also applies for the Web Interface Settings. At present, the UMTS and No-IP settings are not yet supported; they have only been integrated for future applications.

⚠

At present, operation via a surfstick is not yet supported. Please use the WLAN menu in the LCD display to switch WLAN operation on and off.

After switching it off, **“WLAN shutdown”** will be displayed for approx. 60 seconds.
When “WLAN: Off” is displayed, the vehicle's entire power supply can be switched off.

The SD card may be damaged if the mobile home's power supply is disconnected (from the mains or the battery) without having shut down the WLAN correctly.

Renault

Fiat (Drive)

When replacing the button cell, please ensure that plus and minus are in the right direction. Incorrect polarity may cause the display to become defect.

General information regarding the LCD display

The time and date are buffered by a 3V 210 mAh, CR2032 type button cell. If, therefore, the time should be incorrect or the clock should stop working, this button cell must be replaced.
It is mounted on the reverse of the circuit board ① of the LCD display. To replace this button cell, the LCD display must be removed from the furniture front by carefully clipping the chrome-plated frame out of its holder. You will then see the screws that fasten the plastic part to the furniture. Loosen these screws to detach the display.

Remote control(s), bed

The reading lights by the bed (left and right) must each be switched on separately on the lamp itself before they can be controlled by means of the remote control.

Renault

- Briefly press the key on the remote control to switch on the left light ①, right light ③ or the light in the wall cabinets ②.

Fiat Drive

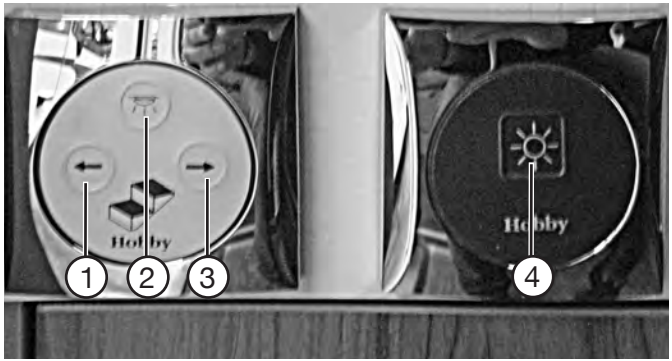
- Briefly press the key on each remote control by the bed to switch on the left light ①, right light ③ or the ceiling light above the seating arrangement ②. Press longer on the key to regulate how brightly you want the lights to shine. The brightness you set will be saved; when the lights are switched on again, the brightness you originally set will also be switched on again.

Fiat (Drive)

Renault

Remote control, washroom

- Briefly press the key to switch on the light in the washroom (and in the separate shower, if there is one).



Remote control(s), entrance

These remote control functions work even if the LCD panel has been switched off. The remote control controls the electric entrance step.

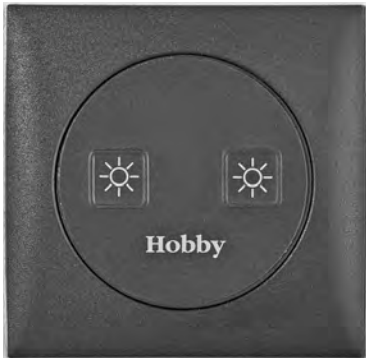
- Press the key ① to fold the step out; press it ③ again to fold the step back in.

Renault

- Briefly press the key ② to switch on the ceiling light.

Fiat

- Briefly press the key ② to switch on the outer tent light (not while the motor is running).
  Key ④ (**only for Fiat**): Briefly press the key to switch on the ceiling light.



Remote control for kitchen (only Fiat Drive)

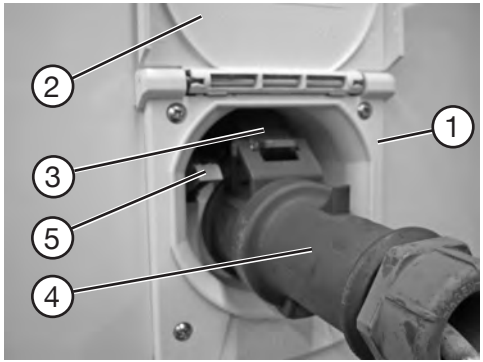
- Briefly press the left key to switch on the lighting in the wall cabinets and on the floor.
- Briefly press the right key to switch on the kitchen light (integrated in the window).

7.3 Electric power supply

In all of the vehicles the central electrical system is installed under the refrigerator. **(with the exception of the 65 HFL Drive) and under the passenger's seat (only Fiat Drive)**

Electricity for the motor home can be obtained from the following connections:
- 230V mains connection 50 Hz
- via the ancillary battery

Everything that uses 12 V, such as lighting, water supply, etc., is available.



Supply via mains connection

The mobile home is connected to the external 230V mains by a CEE feeder plug ① located in the side wall.

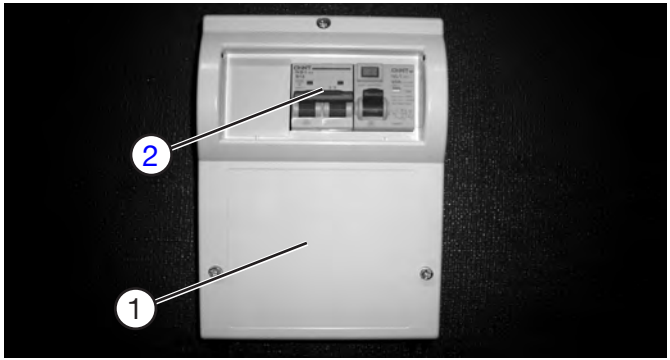
To connect the CEE feeder plug

- Switch off the automatic circuit breaker ① (p. 07-24) by pressing the rocker switch ② down (p. 07-24).
- Flip up the cover flap of the external socket ② (see 05-11).
- Completely unwind the connector cable.
- Open the cap of the CEE connector plug ③ by pulling it up in a 90° angle.
- Insert the plug ④ until it locks into place.
- Switch the automatic circuit breaker ①(p. 07-24) back on.

To disconnect the electric connection:

- Switch off the automatic circuit breaker ① by pressing the rocker switch down ②.
- Press the lever ⑤ in the external socket down.
- Remove the CEE plug ④ .
- Press the cover flap ② (p. 07-23) of the external socket down until it clicks into place.

⚠ Only plugs and cords that comply with CEE standards may be used.



Fuse protection for the 230V system

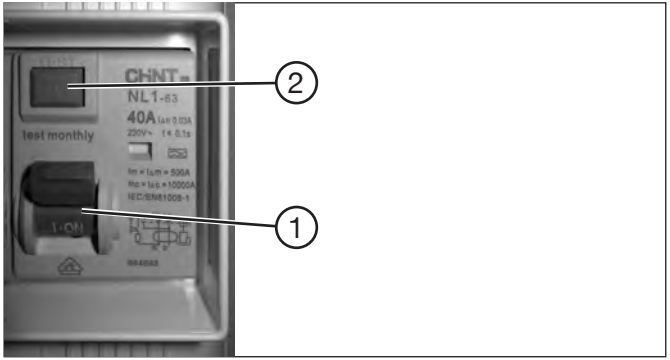
The 230V system is protected by a two-pole 13 A automatic circuit breaker ①, which is located underneath the refrigerator. (Exceptions to this include special installations, such as hot-water heating, etc.. In this case, an additional two-pole 16 A circuit breaker has been installed.) If there are two automatic circuit breakers, both must be switched on.

Rules for the mains connection

- Use only a 3 x 2.5 mm² cable with a maximum length of 25 m, a CEE plug and connector to connect the motor home to an external 230 V mains.
- After the mains connection has been plugged in, both the modular and the vehicle battery will automatically be charged by the battery charger in the motor home (even if the Control Panel has not been switched on).

⚠ When obtaining electricity via a cable drum, this **must** be completely unwound, as otherwise induction may cause the cable to heat up, which could lead to burning. (Provided there is no protection against overheating)

- The 230 V mains connection in the motor home has been designed for a total power consumption of 3000 W. If additional devices requiring electricity are connected, such as a water heater, etc., you must ensure that this electric power value is not exceeded, taking other electrical equipment in use, such as the refrigerator, heating, etc., into account.



Residual current device

The standard version of your vehicle is equipped with a residual current device that will interrupt the electric circuit in case of a possible residual current. Should there be a malfunction, the passenger circuit breaker opens the entire 230 V circuit.

⚠ Repairs must not be carried out on the residual current device.

⚠ A residual current device does not guarantee any protection against the danger from an electric shock. It does not protect against possible electrical accidents.

The tripping time for the residual current device (RCD) with a residual current of 30 mA is less than 0.1 seconds.

After putting the electric system into operation, the function of the residual current device must be checked. After voltage has been applied to the switch ① and it is on (set to I-ON) it must set off when you press the test button ② .

The rocker switch ② (p. 07-24) jumps down; after it has successfully been checked it must be switched back up to the "On" setting.

This check should be carried out at least once a month to ensure that the residual current device functions perfectly in case there should be a fault in the current.

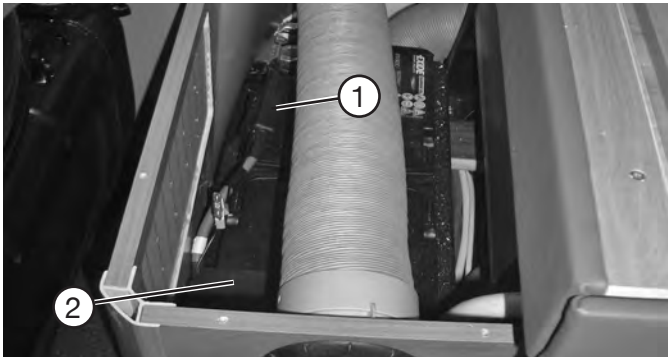
When the residual current device has been set off (even when testing) the customised settings in all mains-operated devices are lost and the default settings made by the manufacturer will apply again.

If the automatic circuit breaker has gone off (other than if you have switched it) you must wait a short while before switching it on again.

- If the automatic circuit breaker remains active, there was only an overload.
- If the automatic circuit breaker goes off abruptly again, there is either a short circuit or an earth fault.

Devices that set off during operation show that there is a defect; they must be checked and/or repaired by an electrical engineering specialist.

Switching it back on again and again will do no good. The automatic circuit breaker also goes off when the rocker switch is held firmly in place.



Operation via ancillary battery

Position of the 92 Ah AGM ancillary battery in the Fiat/Drive

The ancillary battery is mounted in the front passenger console. The foot of the battery is attached to a base plate.
The passenger seat including the rotating assembly must be dismantled in order to subsequently fit or change the batteries.

The battery sensor is safeguarded by means of a 10A fuse.

Position of the 92 Ah AGM ancillary battery in the Renault/Van

The ancillary battery is located in front of the single seat at the front right. It is also attached by the foot to a base plate. To remove it, the hot-air pipe and the wood panelling must first be removed.

① Blade fuse 50A with fuse holder, positive cable of ancillary battery.
② 10A fuse for battery sensor.

- Only accumulator batteries with bound electrolytes (gel batteries) may be installed in those positions specified by the manufacturer.
- The installed gel battery may not be opened.
- When changing ancillary batteries, use only batteries of the same make and capacity.
- All of the electrical devices must be switched off before you disconnect or connect the ancillary battery.
- Before replacing fuses you must first de-energise the charger.
- Before replacing fuses you must first de-energise the charge controller.
- Before replacing a blown fuse you must first fix whatever caused the fuse to blow.
- Fuses may only be replaced by fuses with the same fuse protection value.
- Airing the charge controller insufficiently will cause a reduction of the charge current.
- The surface of the charger casing may become hot when the device is in operation.

Position of the battery circuit breaker

In the **Renault,** the battery circuit breaker is located in the B-pillar in the passenger door **(see illustration above).**

Fiat Drive
directly on the passenger seat.

A circuit breaker has been installed to protect the modular battery from being exhaustively discharged when the motor home is not being used. When the switch is opened, the modular battery is completed disconnected from the 12 V mains.
"Off" position = disconnected from 12V mains.

The battery charger is directly connected to the ancillary battery so that the ancillary and starter batteries can be charged even if the battery circuit breaker is switched on.

To keep the batteries charged even when not in use, it is mandatory that the vehicle be connected to a 230V mains connection every 6 weeks. Recharging should be carried out for at least 24 hours.

The battery circuit breaker must be **on** when using the vehicle home and whilst driving.
When the circuit breaker is open, the electrical input stage will **not** engage automatically.

If the battery circuit breaker has been switched on for a longer period of time, you may lose your customised radio and/or sat nav device settings. These settings must then be entered again.

Operating and charging the ancillary battery

If the motor home is not connected to the 230V mains supply, the ancillary battery will supply the electrical system with 12V DC voltage. Since the battery only has a limited capacity, the electrical devices should not be operated for a longer period of time without charging the battery or connecting the camper to the 230 V mains connection.

The ancillary battery can be charged from the following power sources:

- the generator when the motor is running
- the CA 360 charger
- the 350 VA switching power supply

Items 2 and 3 can only be carried out using a 230V power feed (only Renault).

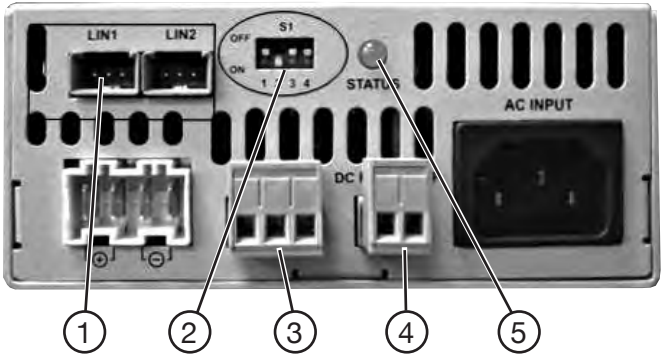
The source of input with the highest input voltage supplies the charge current for the connected battery.

- Always charge the ancillary battery for at least 10 hours before each journey, directly after each journey and before you take the motor home temporarily out of service.
- Use every opportunity during your journey to charge the battery.
- The battery loses its capacity after having been used for a while and at low temperatures.
- An acoustic warning signal will be given off if the remaining time during discharge operation is less than 1 hour.
- A warning will go off if the battery ages to a value less than 50% of its nominal capacity.
- The battery is only charged if it has a minimum voltage of 8 V.
- If the vehicle is not in use for a longer period of time, the battery should be disconnected after it has been optimally charged by switching the battery circuit breaker on.
- For further information, please refer to the separate operating instructions for the charge controller.

Charger CA-360, 25 A power charging module

The charger supplies the batteries with electric power when there is bus-powered mains operation.
As they heat up, the charger reduces its power output to ensure that there is no chance of overheating.

In Fiat Drive models, the charging device can be accessed from the back by the passenger seat.



① Socket; the middle pin is the sensor.
② PCB switches. The switches must all be in the top position, i.e. all set to “off”.
③ Changeover contact, for free disposal.
④ Contact bridge, fan on/off.
⑤ LED blinks to show current charging mode.

Operation when the motor is running

As soon as the motor is running, a relay connects the starter battery and the caravan battery in parallel. Therefore, the dynamo charges both batteries. If the D+ signal no longer sits close to the dynamo, the two batteries will be separated from each other again. In this way, the starter battery cannot be discharged by equipment in the motor home.

The 12 V supply for the refrigerator only functions when you are driving. If the motor has stopped, the 12 V operation of the refrigerator is automatically turned off again.

To charge a discharged caravan battery optimally while driving, disconnect the 12 V operation of the refrigerator and turn off as much equipment as possible that uses 12 V.

Checklist

- Turn off the motor.
- Switch on the 12 V master switch.
- Turn off all equipment that uses 12 V.
- Start the motor.

The voltage of the caravan battery must rise if
- the engine speed is above the idling speed,
- the vehicle‘s battery is not completely discharged.

The control panel shows whether or not the generator has been charged. If this is not the case, please check the following:

- Is the 50A fuse in the supply line to the ancillary battery near the motor battery functioning properly?
- Is the “Motor running” signal on the input module on?

Fig. Renault

7.4 Electrical system

As soon as there is a mains connection, the electrical system will switch from battery operation to mains operation.

The switching power supply (350 VA) transforms the external mains voltage for the 12V electrical devices (only Renault).

All of the lamps in the motor home use 12V LED lights.
Only large electrical devices such as the Combi E heating*, air-conditioning system, etc., use 230V.

① 5x melting fuses 15 A; can be accessed by removing the plastic covering.
② The spare fuses are located here.

20 A refrigerator

7.5 A steady plus S13, KS lighting, heating

15 A D+ switched, steady plus S15

7.5 A sidelight

7.5 A radio

15 A ank heating

25 A entrance step

Input module Renault

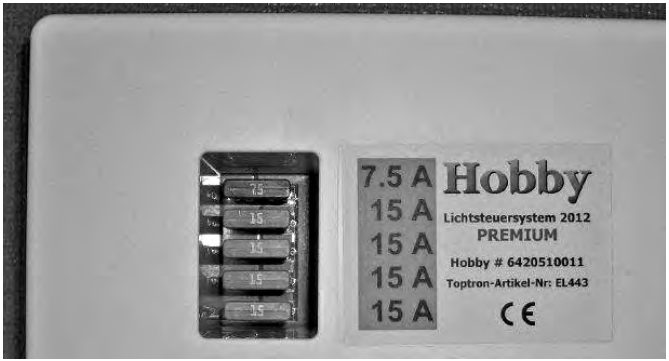
Input modulel Fiat Drive

Assignment of fuses, Input module

The fuses for the individual internal electric circuits are located in the input module.

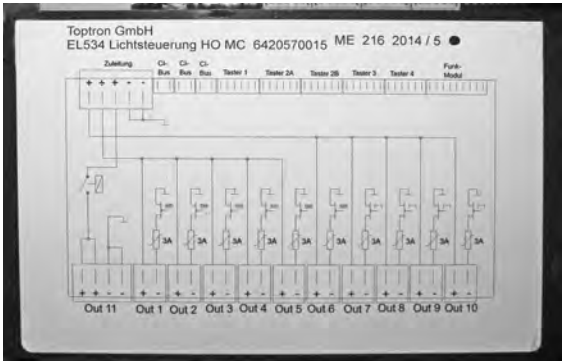
In some models, there may be slight deviations in this assignment.

Only replace defect fuses if you know what caused the fuse to blow and have fixed this.



Light Control System Renault

The fuses for the light control system can be accessed through an opening in the casing cover.



Light Control System Fiat Drive

The outputs are safeguarded by internal circuit breakers (polyswitch fuses).

TV unit

The mounting space for a flat-screen TV* is located beneath the display cabinet in the entrance area.
The corresponding connections and sockets can be found in the display cabinet.

The corresponding connection for the SAT antenna (E3) is fed out openly in the position appropriate for the model in question.

Position:
Renault 65 GE
Wall cabinet, seating arrangement

Drive
65 HFL: Clothes cupboard
70 GE: Wall cabinet, seating arrangement
70 HGE: Wall cabinet at foot of right-hand bed (in the direction of traffic)
70 HQ: Clothes cupboard by right-hand bed (in the direction of traffic)

External socket and antenna terminal in the outer tent*

As an option, your motor home also has a combined external socket and antenna terminal in the outer tent. This can be used, for example, to set up a TV in the outer tent. Depending on how you wire it, the integrated antenna terminal can be used as either an input or an output socket. For further information, please speak to your Hobby dealer

7.5 Special Lights

The switches for the lights described here are located directly on the lights themselves; they are not controlled via the control panel.

Reading lights
The LED reading lights can be switched separately.

If the LED reading lights have been switched on, they can also be selected on the remote control by the bed.

Touch lights (model-specific)

To switch on and off

- Touch the middle notch ① of the spotlight.

Touch lights can only be operated when they have been activated. To do so, the lighting atmosphere 2 (**Renault**) or lighting atmosphere 1 (**Fiat Drive**) must be switched on on the control panel (lighting acrylic glass frames). The touch lights then shine blue when they are on stand-by.

7.6 Mobile navigation *

As an optional feature, your mobile home can be equipped with a mobile navigation system and integrated rear view camera.

- Read the device manufacturer‘s operating instructions carefully before initial operation.

- Do not allow yourself to be distracted by this device as this may cause accidents.
- Never operate the device while driving.
- Check the display panel only when the traffic situation is safe for doing so.

7.7 Subsequently installed devices

Subsequently installed electronic devices that can be used while driving (e.g. mobile phones, wireless equipment, radios, cameras for driving in reverse, navigation equipment, or others) must meet all of the requirements for electromagnetic compatibility. Such equipment must have been approved in accordance with EU Guideline 72/245/EWG as it appears in version 95/54/EG, because otherwise it may cause interference with the electronic systems already installed in the motor home.

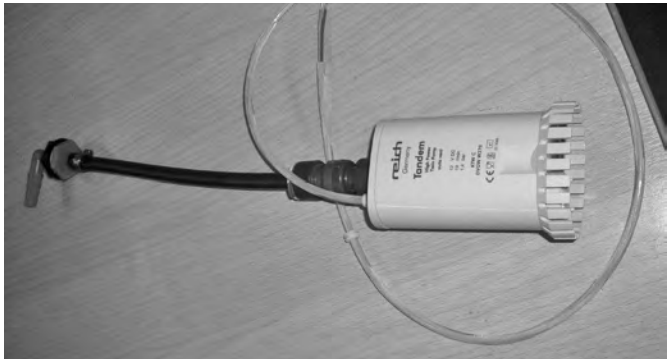
A CE mark is mandatory for devices that have been subsequently installed and which cannot be used while driving.

Chapter 8: Water

8.1 General

We recommend that you inspect any water you have left in the tank, this is very critical before using the water again.

- Always use water that is of drinkable quality when working with food. This also applies for washing your hands or objects that come into contact with food.
- In order to ensure excellent water quality, water should be taken directly from the public drinking water system.
- Garden hoses, watering cans and similar materials unsuitable for drinking water should never be used to fill the mobile system.
- If the motor home has not been used for a longer period of time, the entire water system must be emptied completely.
- After longer periods of stagnation, the water system must be flushed thoroughly before being used. Should you discover impurities, the material should be disinfected using suitable agents that have been approved for such measures.



8.2 Water supply

Function of the water supply

Fresh water is supplied to the hot-air heating system, the kitchen and toilette via a submersible pump. The TANDEM submersible pump operates electrically:

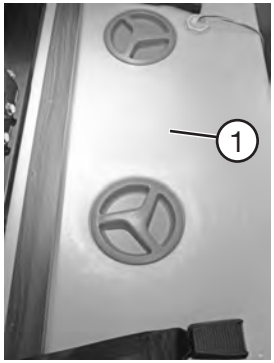
- via the starter / ancillary battery,
- when the mobile home is connected to the 230V mains via the power supply.

The following applies for the TANDEM submersible pump:

- The TANDEM submersible pump is only suitable for water.
- The TANDEM submersible pump can briefly tolerate temperatures of up to 60° C.
- Avoid dry runs.
- Protect the pump from freezing.
- Hard blows or hits as well as very dirty water can destroy the pump.

The TANDEM submersible pump requires no maintenance.

The TANDEM submersible pump switches itself on automatically when the water taps are opened.



Fresh water tank

The tank ① has a volume of 100 l and is located in the seating arrangement.

The tank is filled with fresh water by means of the filler neck ② on the side wall.

The neck for filling up fresh water is marked by a blue cap and a picture of a water tap on the upper edge of the frame. The screw cap is opened and closed by means of the enclosed key for exterior flap locks and the door of the structure.

If you fill too much water into the tank, the excess will run out at the filler neck.

Check the red service lids regularly; they may become loose if the fresh water tank is filled often.

Filling the water system

- Place the caravan in a horizontal position.
- Shut all of the water taps.
- Switch on the main switch on the control panel.
- Close the outlet valve (FrostControl) on the boiler.
- Unlock the petrol cap and turn it counter-clockwise to open it.
- Fill the water tank using the fresh water filler neck.
- Turn all of the water taps to „hot“ and open them. The water pump will be switched on.
- Leave the water taps open until the water flows out of the taps without any bubbles. This is the only way to ensure that the boiler will also be filled with water.
- Turn all of the taps to „cold“ and leave them open. The cold water pipes will be filled with water.
- Leave the water taps open until the water flows out of the fixtures without any bubbles.
- Shut all of the water taps.
- Shut the filler neck.

Use the control panel to check the amount of water in the fresh water tank.

Never introduce anti-freeze or other chemicals into the water system.
This can be poisonous!
When operating during winter ensure that the fresh water tank is sufficiently heated.

To remove water

- The water will be mixed to the desired temperature according to the position of the pre-mixing unit.

Hot water supply

Hot water is supplied by means of the hot-air heating system with its integrated hot-water boiler **(see also Chapter 10.2)**; the options for settings are described on p. 10-05 “Changing the hot water temperature”.

The boiler will automatically empty itself via a safety or outlet valve if there is danger of frost **(see also 10-13 Frost Control).**

Position of the Frost Control valve

Renault (illustration): in the platform beneath the seating arrangement
Fiat: in the side seat directly by the heating

The non-electric safety or drain valve will automatically open at temperatures under approx. 3°C and drain the boiler contents via a drain nozzle.

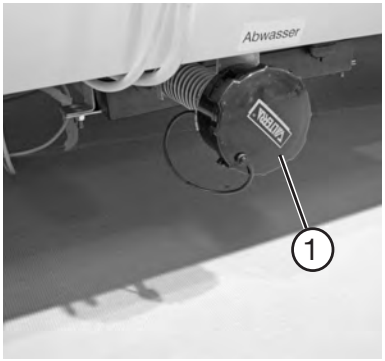
If the cold water system is operated without the boiler the boiler tank will still fill with water. In order to avoid frost damage the boiler must be drained via the drain valve, even when not in use.

Emptying the fresh water tank

The outlet valve is located behind the gas-bottle container flap.

- To empty the fresh water tank, raise the lever ① up to an angle of 90°.

Always empty the fresh water tank completely if the heating has not been switched on and the motor home is not in use, and especially if there is frost.



Emptying the waste water tank

- The waste water opening is located on the left side underneath the vehicle.
- The valve ② for opening the waste water opening is located in a protected position in the gas-bottle container.
- Unscrew the lid ①, open the valve ② and allow the waste water to run off.
- When the waste water has drained out completely push the slide valve back in and screw the cap back on.

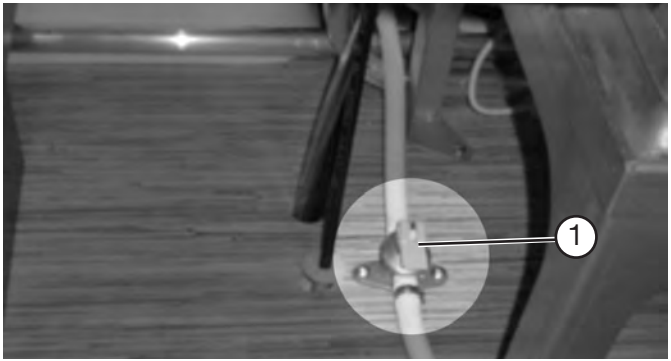
The lid ① slightly sucked into the opening. Therefore, never close the lid too tightly.

Emptying the entire water system

- Use the control panel to switch off the electricity for the water pump by pressing the main switch for a longer period of time (4 sec.).
- Open all of the water taps to the centre setting.
- Hang up the adjustable shower head in the shower.
- Open all of the outlet valves (including the FrostControl).
- Unscrew the cap on the cleaning port of the fresh water tank ①.
- Unscrew the overflow pipe in the fresh water tank.
- Remove the lid of the water tank. Take out the water pump and hold it up until the water pipes have emptied completely.
- Check whether the tank, boiler, faucets and pipes have emptied completely. If necessary, blow out any remaining water in the pipes using compressed air (max. 0.5 bar).
- Re-insert the overflow pipe and the water pump in the fresh water tank and close the openings.
- Leave the faucets and the outlet valves open.
- Clean the tanks and rinse them thoroughly.
- Allow the water system to dry for as long as possible.
- Do not forget to empty the toilet cassette.

If the vehicle is not being used and there is a danger of sub-zero temperatures be sure to drain the entire water system. Leave taps turn on in the middle position. Leave all drain valves open.

Only empty your waste water tank at the specially designated disposal points and never in open spaces! As a rule disposal points can be found at motorway service stations; campsites and petrol stations.



Alde outlet valve

If an Alde hot water heater has been installed, the water runs off through the outlet value ① on the hot water heater instead of through the boiler (**see also 10.5**).

Waste water tank

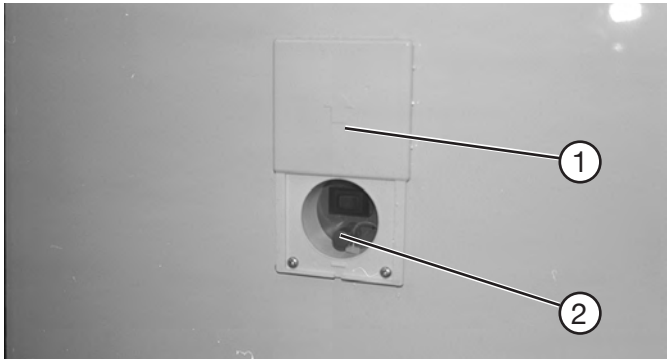
The waste water tank is integrated in the chassis; it is insulated. After the heating system has been switched on on the control panel, the hot air is conducted to the waste water tank. This prevents the waste water from freezing in a light frost.

Do a small quantity of antifreeze agent (e.g. table salt) to the waste water tank if temperatures are significantly below freezing to prevent the waste water from freezing.

The waste water tank is not sufficiently protected against damage from frost when the vehicle is not in use. Therefore, if there is any danger of sub-zero temperatures empty the waste water tank completely.

Never pour boiling water down the sink. This can cause distortions and leaks in the waste water system.

Use the control panel to check the amount of water in the waste water tank.



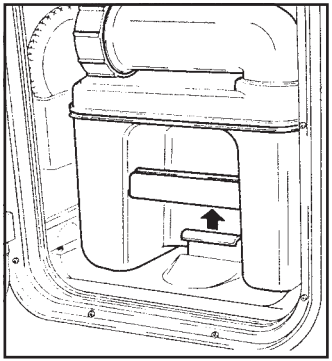
Water connection for external shower *

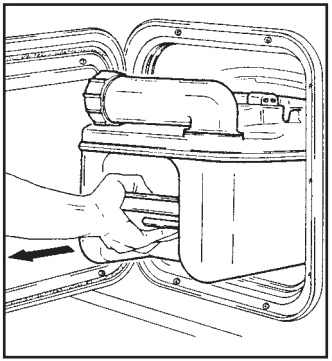
Opening

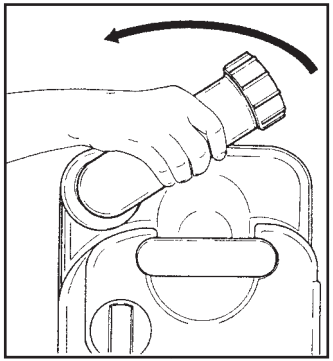
- Push the cover ① up to gain access to the water connection.

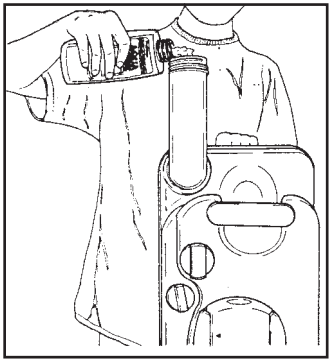
Closing

- Remove the external shower's hose from the connection point ② and attach the protective cover.
- Push the cover down.









8.3 Flushing toilet

Preparing the toilet

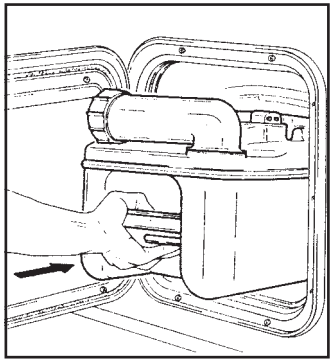
- Open the Thetford door (see 5.1) and pull the holding bar up to remove the waste tank.

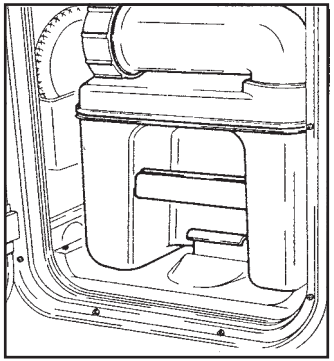
The waste tank can only be removed when the drain valve is closed.

- Pull out the tank as far as possible, keeping it level.
- Slightly tip the waste tank and then pull it out completely.
- Place it in an upright vertical position.
- Turn the drain nozzle to an upward position.

Use toilet fluids very sparingly. An overdose is no guarantee of preventing possible odours!

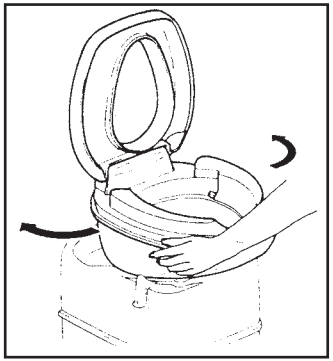
- Fill the waste tank with the correct amount of toilet fluids.
- Then add enough water to completely cover the bottom of the waste tank.
- Return the drain nozzle to its original position.

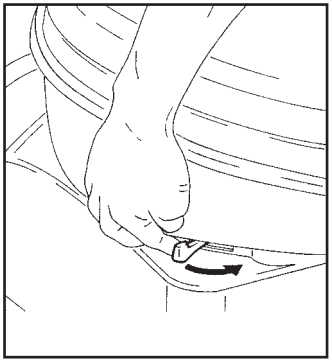




Never fill toilet fluids directly into the toilet bowl.

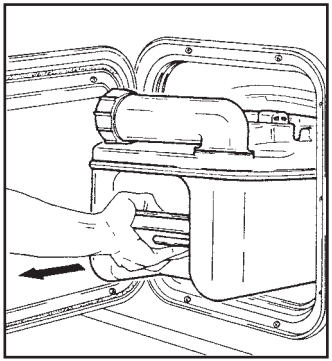
- Push the waste tank back into position.
- Ensure that the holding bar secures the waste tank.
- Close the service flap.

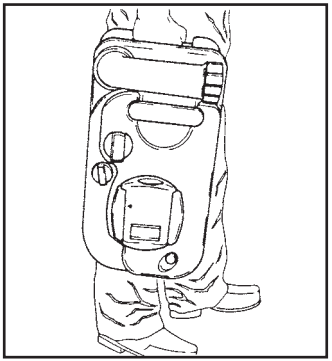




Using the toilet

- Turn the toilet bowl to a comfortable position.
- Fill the toilet bowl with a small amount of water by pressing the flush button or by opening the drain valve by pulling the valve handle under the toilet bowl towards you.
- Use the toilet.
- After use open the drain valve (if still closed) and flush. Close the drain valve after flushing.



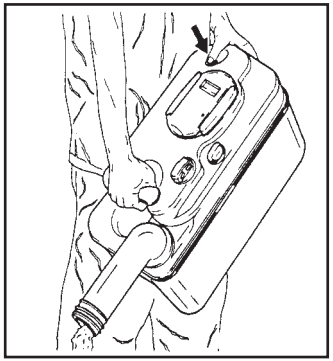


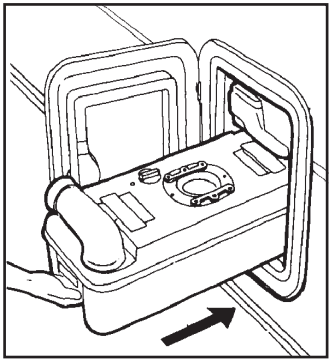
Emptying the waste tank

The waste tank must be emptied at the latest when the LED lights up. It is recommended that the tank is emptied before this. The LED lights up when the tank contains more than 15 litres. From this point in time the tank has a residual capacity of 2 litres, representing approx. 5 flushes.

- Open the toilet flap and pull the holding bar up to remove the waste tank.

The waste tank can only be removed when the drain valve is closed.





Only empty the waste tank at specially designated disposal points and never in open spaces!

- Take the waste tank to a designated disposal site, making sure to hold the drain nozzle in an upright position.
- Remove the cap on the drain nozzle.
- Tilt the waste tank so that the drain nozzle is pointing downwards.
- Press the vent button with your thumb and hold it down. The waste tank will drain itself.
- Return the waste tank to its storage position, ensuring that it is pushed in until the holding bar locks into place.
- Lock the service flap.

Chapter 9: Gas

9.1 General safety rules when using LPG fittings

The operating pressure for gas is 30 mbar.

You are not permitted to operate the heating system while driving!
Exception:
As an optional feature, the vehicle can be equipped with a gas pressure regulator for use while driving (e.g. ControlCS).

Checking the gas fittings

- Before initial operation have the LPG fittings checked by an expert.
- The gas fittings must be checked every 2 years by an LPG expert. This must be confirmed on the certificate (in accordance with Form G 607 from the German Association of Gas and Water Experts (DVGW) and EN 1949).
- Regulator knobs, hoses and exhaust pipes must also be checked.
- The safety regulators and hose lines must be replaced at least every 10 years.
- The connecting hose should also be checked regularly for damage. Replace it immediately if you find tears, porous spots or similar damage.
- The operator is responsible for having checks carried out. This also applies for vehicles that have not been approved for driving on the road.

If you suspect that gas is leaking, take the following measures immediately:
- Close the stop valve on the gas cylinder.
- Ignition sources such as open flames or smoking are strictly forbidden.
- Air the rooms.
- Clear the danger zone.
- Inform your immediate surroundings (groundsman) and, if necessary, the fire brigade.

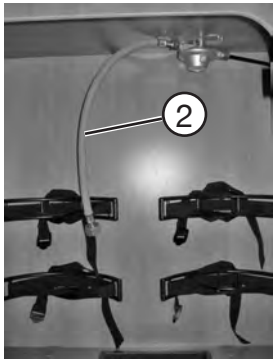
The gas fittings may only be taken into operation again after they have been checked by an expert.

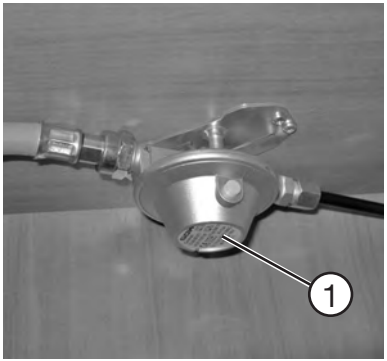
Built-in objects and changes

- Objects may only be built in and changes to the gas fittings made by an expert.
- Only devices with a constant connection pressure of 30 mbar may be operated.
- Following any changes to the gas fittings they must be rechecked by a recognised expert, who must provide a written confirmation.

Regulators and valves

- Use only special vehicle regulators that have a safety valve. In accordance with the German DVWG (German Association of the Gas and Water Sector) Worksheet G 607, other regulators are not permitted; they are not adequate for handling the heavy strain.
- Pressure governors must have a fixed pressure of 30 mbar. The regulations of EN 12864, Appendix D apply accordingly. The pressure governors must have a minimum flow rate of 1.2 hx/h.
- Attach the high-pressure hose on the bottle carefully by hand (note: left-handed thread). Do not use spanners, pliers or similar tools.
- If the temperature is below 5°C use the de-frosting facility (ice-ex*) for regulators.





Gas regulator for France and Great Britain *

Due to specific country regulations, the gas regulator in vehicles exported to France and Great Britain is mounted on the wall of the gas bottle container. The requires the use of a high-pressure hose. Therefore, the low-pressure hoses that are normally used may not be fitted here.

- gas regulator mounted on the wall ①
- high-pressure hose ②

⚠ This must be taken into account should it be necessary to replace the hose.

⚠ Connections on gas pressure regulators are screwed on counterclockwise.

Before initial operation

- The waste gas pipe must be tightly connected to the heating and chimney without any leaks. It may not be damaged.
- Keep vents clear.
- Remove any snow from the chimney.
- Clear aspirating openings for combustion air in the side all from dirt and/or snow. Otherwise, the exhaust fumes could have a CO content higher than allowed.
- Do not close the safety vents.
- We recommend that you store a Type D (dry powder) fire extinguisher with a minimum capacity of 1 kg by the entrance door as well as a fire blanket next to the cooker. Familiarize yourself with the safety precautions against fire that have been set up on the grounds where you are parked.
  (see also Fire protection, Chapter 2.2).

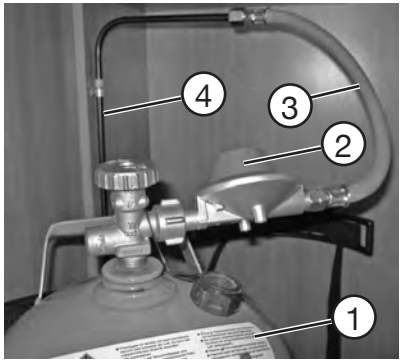
⚠ Never use portable cooking or heating devices, except electrical heating devices (note their power consumption) - but no radiant heaters, because they can cause danger of fire and suffocation.

☞ Read the manufacturer's operating manuals carefully!

9.2 Gas supply

The motor home is equipped with a propane gas system (gas bottle not included in scope of delivery). This system is used to run the following equipment:

- Cooker
- Refrigerator
- Heating
- Hot water boiler
- Oven
- Possibly special accessories



Gas bottle cabinet

The gas bottle container can be accessed separately in the side wall.

The gas bottle container holds two 11 kg propane cylinders ①. Via a safety regulator ② , the gas bottles are attached by a hose ③ to the supply line ④. Each bottle is fastened to the wall by two separate belts ⑤.

⚠ Gas bottles may only be carried in the gas bottle container.

The following applies to the gas bottle cabinet:

- Always check the gas cylinder mountings before driving. Stand the gas cylinders upright and close the valves.
- Pull any loose straps tight.
- The (high-pressure) hose to the cylinders must be checked for leaks using the leak detector every time a cylinder is changed.
- The gas bottle cabinet is not suitable for storing additional items.
- The stop valves on the gas cylinders must always be easily accessible.
- Do not close the gas bottle cabinet's air vents.
- Ensure that third parties cannot gain access to the gas bottle cabinet.

⚠ Gas bottles must be shut while driving.

Changing gas cylinders

Do not smoke or ignite open flames while changing the gas cylinders. After changing the gas bottles, check whether there is any gas escaping from the tie-in point by spraying it with leak detection spray.

- Open the door of the gas bottle cabinet.
- Close the main stop valve on the gas cylinder. Pay attention to the direction of the arrow.
- Unscrew the gas pressure regulator/ high-pressure hose* by hand from the gas bottle (left-handed thread).
- Loosen the fixing strap and remove the gas cylinder.
- Replace the full gas cylinder in the gas bottle cabinet and carefully fasten it using the fixing straps.
- Screw the gas pressure regulator/ high-pressure hose* by hand on to the gas bottle (left-handed thread).
- **Only when equipped with a crash sensor*:**
  Press on the hose rupture protection (green button) on the high-pressure hose **(see 09-7).**
- Check that gas is not escaping from the connection point using leak detector spray.
- Close the gas bottle cabinet door.

Heating (Oven*) Gas cooker Refrigerator

Gas shutoff valves and valves

Every gas device is fitted with a corresponding gas stop valve.The gas stop valves are located in the kitchen drawer above the cutlery tray or in the lower kitchen cupboard. They have been marked with the corresponding symbols.

Place of installation of gas shutoff valves

- in the top drawer in the kitchen unit

The following applies to stop valves and valves:

- All the valves on gas devices must be closed while driving.
- The lower photograph shows the shut off valves when they are closed. To open the valves, they must be turned to a vertical position. (See upper photo)
- No firing point may be in operation when filling the petrol tank of your vehicle on ferries or in the garage.

⚠ Should you suspect a leak in the gas system, immediately close the shutoff valves in the vehicle and the gas bottle valves in the gas bottle container.

⚠ Over the years, vibrations can cause slight leakages to occur. If you suspect that there are leakages, have your dealer or an authorised workshop for gas facilities check your system.

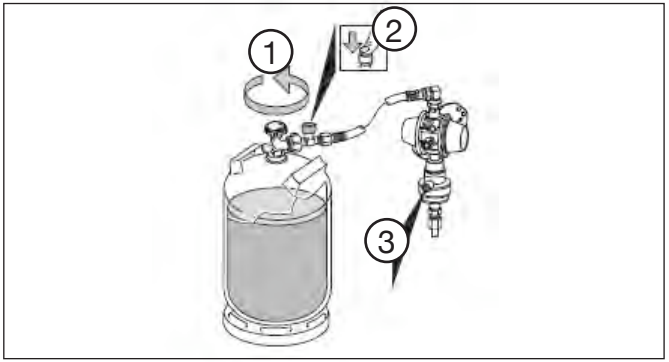
⚠ Never carry out leak tests near an open flame.

Gas regulator with a crash sensor *

Using the MonoControl CS, it is possible to heat the vehicle even while driving.

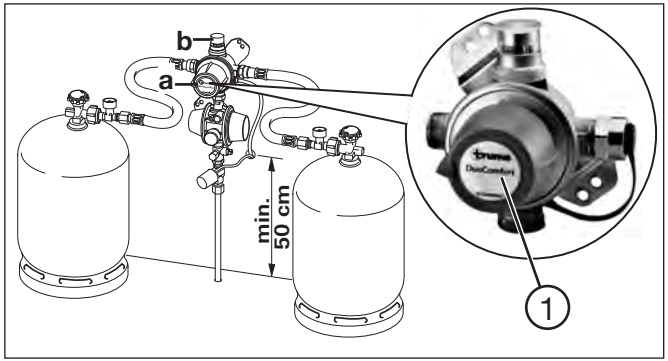
Should there be an accident, the integrated crash sensor automatically interrupts the gas supply, thereby preventing gas from escaping.

(Effect of delay 3.5 g ± 0.5 g; this corresponds to an impact speed of 15-20 km/h against a fixed obstacle.)



To operate

① Open the valve on the bottle.
② Press firmly on the hose rupture protection (green button) on the high-pressure hose.
③ If necessary (e.g. after it has been newly mounted or the gas bottle accidentally hits against the gas pressure regulator system) press the green reset button on the MonoControl CS (resets the crash sensor activation element).



Switching valve for the two-cylinder gas unit*

The DuoControl CS changeover valve enables you to automatically change from the operating bottle to the spare one. The crash sensor is integrated in the DuoControl; it enables you to use the heating system while driving.

It operates similar to the MonoControl CS.

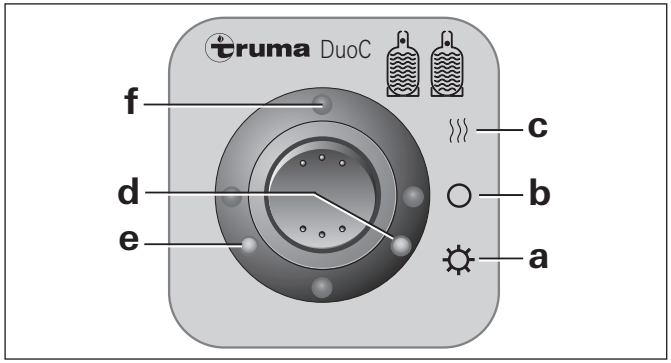
a Turn the knob to the left ① or right to determine which cylinder is to be used.

b Shows the status of the cylinder in use.
Green: full
Red: empty

Function

- Attach gas cylinders and open the valves of both gas cylinders. Turn the knob to the left or right as far as it will go.

If the pressure in the cylinder is less that 0.5 bar, the valve will automatically switch the cylinder.



Remote indicator for the switching valve *

The remote indicator is coupled to the changeover valve of the two-bottle gas system.

- **a** Operation in summer. Press the switch down and the LED will show the status of the cylinder in use.
- **b** Display switched off.
- **c** Operation in winter. Press the switch up and, in addition to showing the status, the switching valve will be heated (yellow LED lights up).
- **d** Red LED (cylinder in use is empty)
- **e** Green LED (cylinder in use is full)
- **f** Yellow LED (operation in winter)

External socket for gas *

The external socket for gas is used to connect external gas devices such as a gas barbecue or lamp.

> The operating pressure of the device to be connected must be 30 mbar (1 bar = 14.5 PSI). Maximum performance of devices to be connected: 1.5 kW

The plug connection can only be hitched when the emergency shutoff valve has been closed. Push back the clutch sleeve to undo the safety latch.

The coupling valve has been constructed in such a way that the emergency shutoff valve can only be opened if a plug connection has been used to hitch the coupling. When hitching, the plug connection is plugged into the safety coupling.

When unhitched, use the protective cap to shut the opening of the valve.

The external socket for gas is only suitable for extracting gas, not for supplying gas to the system.

Chapter 10: Built-in devices

10.1 General Information

In this chapter, you will find information on the devices that have been built into the motor home. This information refers only to the operation of these devices. To some extent, the devices described are special accessories. For further information on the individual built-in devices, please refer to the separate operating instructions that have been included in the blue service bag found in the vehicle.

⚠ Built-in devices may only be repaired by specialists.

⚠ Only the device manufacturer's original spare parts may be used for maintenance and repair work.

⚠ Any changes to the built-in devices as well as non-compliance with the rules for use will cause the guarantee to become void and lead to the exclusion of liability claims. Furthermore, the operating licence for the device will become void and, in some countries, this means that the operating licence for the vehicle is also void.

☞ Please also refer to the instructions in **Chapter 9** for operating gas devices, gas regulators and gas bottles.

☞ Please observe the instructions in **Chapter 7** for operating electrical devices.

10.2 Heating

⚠ You are not permitted to operate the heating system while driving!
Exception:
As an optional feature, the vehicle can be equipped with a gas pressure regulator for use while driving (e.g. Control CS).

The combined LPG heating consists of a warm air heater with an integrated hot water boiler (capacity: 10 l).
The heating system is fully operational with or without the hot water system.

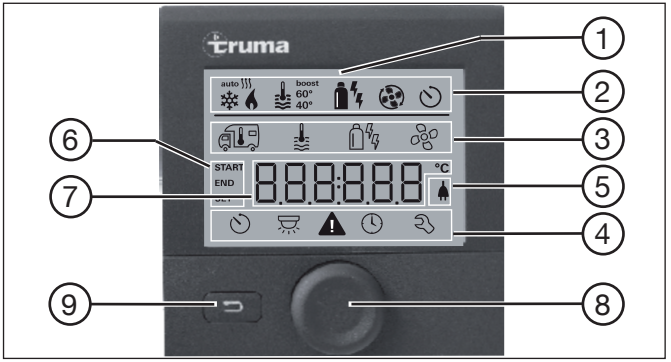
Place of installation:
- side seat in the seating arrangement

Initial operation

- Set the air vents in the motor home so that the warm air is blown out where required.
- Check that the chimney is clear. Remove any covers.
- Open the gas bottle and gas shutoff valve on the gas pipe.

- Only operate the device if it is in perfect technical condition.
- Always have malfunctions repaired immediately. Only repair malfunctions yourself if such malfunctions are described in the troubleshooting instructions in this manual.
- Do not carry out any repairs on or make any changes to the device.
- Only have a defect device repaired by the manufacturer or their service department.

If the system's power supply is interrupted, the time must be reset.



Operating and display controls

① Display
② Status line
③ Menu line (top)
④ Menu line (bottom)
⑤ Display: 230V mains voltage (charging current)
⑥ Display: timer
⑦ Settings / values
⑧ Adjusting knob / pushbutton
⑨ Reset button

The adjusting knob / pushbutton ⑧ is used to select the menus in lines ③ and ④ and change the settings. The data is shown on the display ① ; the background is illuminated. Use the reset button ⑨ to return to the previous menu.

Adjusting knob / pushbutton

The adjusting knob / pushbutton ⑧ is used to select and change specified values and parameters. The changes are saved by briefly pressing the button. Selected menu items blink.

Turn to the right (+)
- Goes through the menu list from left to right.
- Increases the values.

Turn to the left (-)
- Goes through the menu list from right to left.
- Decreases the values.

Press the button briefly
- Saves a selected value.
- Selects a menu item; changes to the setting mode.

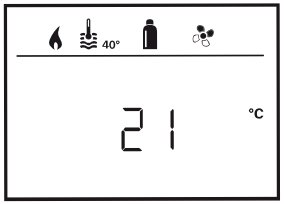
Press (3 seconds)
- Main function ON / OFF

Reset button

Press the reset button ⑨ to return to the previous menu and reject the settings. This means that the previous values will continue to apply.

To operate

Start / stand-by screen



A few seconds after the control panel has been connected to the power supply, a start screen will appear.

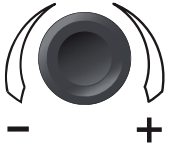
If nothing is entered for several minutes, a stand-by screen will automatically be displayed.

When the time is set (see “Setting the time”) the display alternates between the time and the room temperature that has been set. If no time has been set, the set room temperature will be displayed permanently.

Functions

The functions in the menu lines ③④ of the control panel can be selected in any sequence. The operating parameters are shown in the status line ② or in the display ⑤⑥.

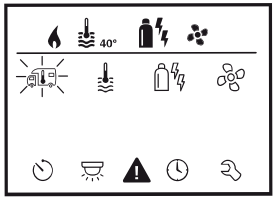
Switching the control panel on and off



Press the adjusting knob / pushbutton for longer than 3 seconds.

- Previously set values / operating parameters will be reactivated after the control panel has been switched on.
- If the heating system is not supplied with operating voltage for more than 2 hours, the control panel will automatically switch itself off.
- Due to an internal lag feed in the heating system, it may take a few minutes for the control panel to switch off.

Selecting the setting mode



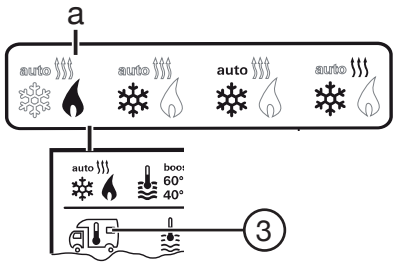
Press the adjusting knob / pushbutton

The display shows the setting mode. The first icon blinks.

Changing the room temperature

Use the adjusting knob / pushbutton to select the icon in the menu line ③

- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton to select the desired temperature.
- Press the adjusting knob / pushbutton to confirm the temperature.



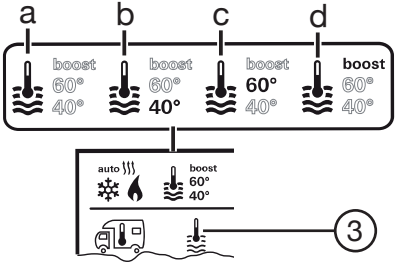
a = Heating

- Heating is switched on.
- Adjustable range of temperature: 5 - 30°C (in increments of 1°C)
- Use the adjusting knob / pushbutton for fast temperature changes (on stand-by screen).

Changing the hot water temperature

Use the adjusting knob / pushbutton to select the icon in the menu line ③

- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton to select the desired temperature.
- Press the adjusting knob / pushbutton to confirm the temperature.



a = boiler[1)] is switched on
b = 40° ** hot water temperature of 40°C
c = 60° hot water temperature of 60°C
d = BOOST[1)] specifically heats up the contents of the boiler (boiler operation) fast for a max. period of 40 min.

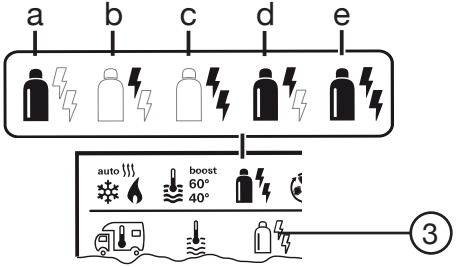
[1)] The icon will blink until the desired water temperature is reached.

[1)] Hot water temperature of 40°C can only be maintained at 40° C for a limited period of time if both the room and the water are being heated.

Selecting the type of energy *

Use the adjusting knob / pushbutton to select the icon in the menu line ③

- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton to select the desired type of energy
- Press the adjusting knob / pushbutton to confirm the temperature.



Icon	Type of operation	Type of energy
a	Gas	Gas
b	EL 1	Electricity
c	EL 2	Electricity
d	MIX 1[1)]	Electricity + Gas
e	MIX 2[1)]	Electricity + Gas

[1)] Mixed operation (electric and mixed operation are optional extras)

As soon as the heating has been switched on (room temperature and hot water temperature have been activated) the type of energy selected in the previous heating operation is displayed in the status line.
Manufacturer's default setting: gas.

Special features in mixed operation

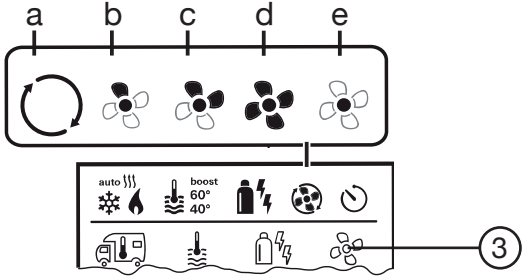
Interrupting the 230V power supply:
The heating system will switch automatically to gas operation. As soon as the 230V power supply has been reinstated, the heating system will automatically switch back to mixed operation.

Malfunction in the combustion process (e.g. lack of fuel):
Combi Gas The heating system will switch automatically to electric operation. If it is running in mixed operation, the cause of the malfunction must be eliminated. Use the control panel to switch the heating off and then on again.

Selecting the fan speed

Use the adjusting knob / pushbutton to select the icon in the menu line ③.

- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton to select the desired fan speed.
- Press the adjusting knob / pushbutton to confirm the temperature.



Icon	Type of operation	Description
-	OFF	Fan is switched off. (Can only be used if no device is being operated.)
a	VENT[1)]	Air circulation, if no device is being operated. RPM can be selected in 10 increments.
b	ECO	Low fan speed
c	HIGH[2)]	High fan speed

d	BOOST	To heat room rapidly Available if the difference between the selected and the actual room temperature is more than 10°C.

[1] Can lead to higher engine wear, depending on how often it is selected.

[2] The “HIGH” fan speed has a higher current consumption, higher noise level and higher engine wear.

As soon as the heating has been switched on (room temperature and hot water temperature have been activated) the fan speed selected in the previous heating operation is displayed in the status line. Manufacturer's default setting: “ECO”.

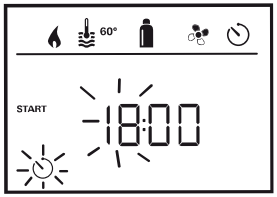
Setting the timer

The timer can only be selected if the clock on the control panel has been set.
If the timer has been activated (ON), the menu item Activate timer (OFF) is first displayed.

Use the adjusting knob / pushbutton to select the icon in the menu line ④ .

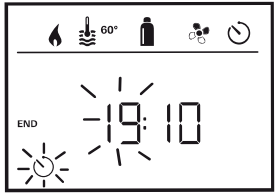
- Press to switch to the setting mode.

Entering the start time



- Use the adjusting knob / pushbutton to set the hours and then the minutes.

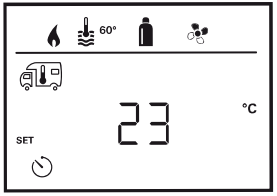
Entering the end time



- Use the adjusting knob / pushbutton to set the hours and then the minutes.

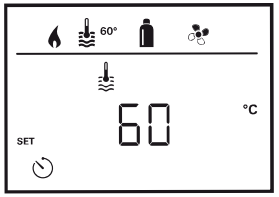
If the start/end time was exceeded during entry, the operating parameters will only be taken into account after the next start/ end time has been reached. Until then, the operating parameters set outside the timer will remain valid.

Setting the room temperature



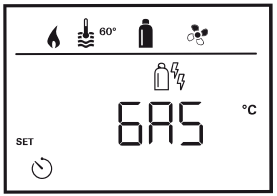
- Use the adjusting knob / push-button to select the desired room temperature.
- Press the adjusting knob / push-button to confirm the temperature.

Setting the hot water temperature



- Use the adjusting knob / pushbut-ton to select the desired hot water temperature.
- Press the adjusting knob / push-button to confirm the temperature.

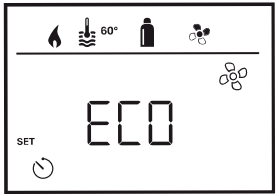
Selecting the type of energy *



- Use the adjusting knob / pushbut-ton to select the desired type of energy.
- Press the adjusting knob / push-button to confirm the temperature.

The menu item “Select type of energy” will be depicted when a heating system that uses electric heating rods has been connected (optional extra).

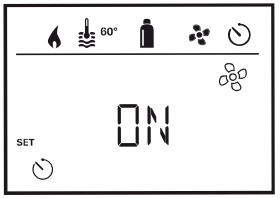
Selecting the fan speed



- Use the adjusting knob / pushbut-ton to select the desired fan speed.
- Press the adjusting knob / push-button to confirm the temperature.

The menu item “Select fan speed” will be depicted when the hea-ting / hot water temperature has been set.

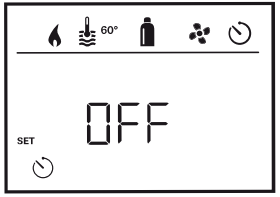
Activating the timer (ON)



- Use the adjusting knob / pushbutton to activate the timer (ON).
- Press the adjusting knob / pushbutton to confirm the time entered.

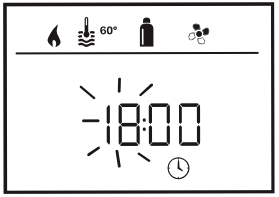
The timer will continue to remain active, even for several days, until it has been deactivated (OFF).
The icon for the timer will blink when the timer has been programmed and is active.

Deactivating the timer (OFF)



- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton to deactivate the timer (OFF).
- Press the adjusting knob / pushbutton to confirm the time entered.

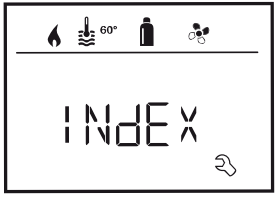
Setting the time



- The hours blink.
- Use the adjusting knob / pushbutton to set the hours (24-hour mode).
- After pressing the adjusting knob / pushbutton once again, the minutes will blink.
- Press the adjusting knob / pushbutton to confirm the time entered.

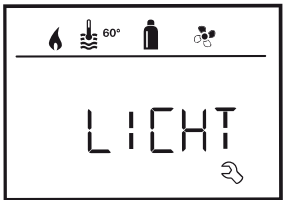
Service menu

To show the version number of the connected devices



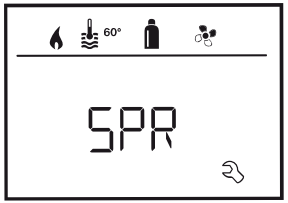
Show the version number of the heating or control panel.

Changing the background illumination of the control panel



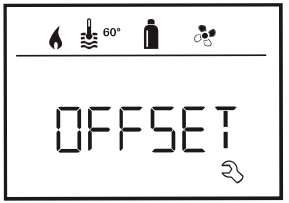
The background illumination can be changed in 10 increments.

Changing the language



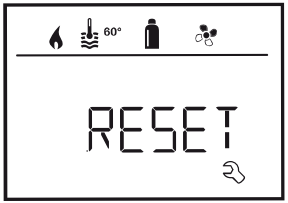
Select the desired language from the languages available (e.g. English, German, French, Italian).

Calibrating the temperature sensor (OFFSET)



The temperature sensor for the heating can be individually adjusted to the size of the vehicle. The offset can be set in increments of 1°C within a range of -5°C to +5°C.

Resetting to manufacturer's default setting (RESET)

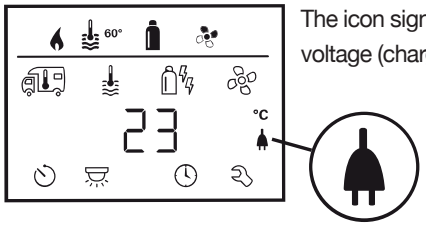


The reset function resets the control panel to the manufacturer's default setting. It deletes all of the settings you have made.

Confirming the reset

- Press the adjusting knob / pushbutton

Display: 230V mains voltage

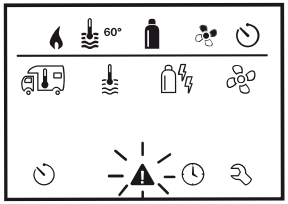


The icon signals that the 230V mains voltage (charging current) is available.

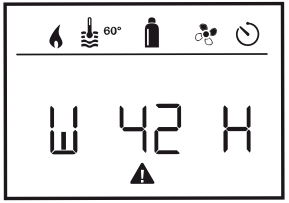
This can only be displayed in connection with a Combi E CP plus heating system that includes additional heating rods for electric operation (optional extra).

Warning

A warning icon appears to signal a warning that one of the operating parameters has reached an undefined status. In this case, the device in question will continue to operate. As soon as the operating parameter is once again within its specified range of values, the icon will disappear.



Reading out the warning code



- Use the adjusting knob / pushbutton to select the icon.
- Press the adjusting knob / pushbutton. The current warning code will be displayed. Use the error list to determine the cause of the warning and eliminate it.

W = Warning
42 = Error code
H = Heating

Cause eliminated / Return to setting mode

- Press the adjusting knob / pushbutton.

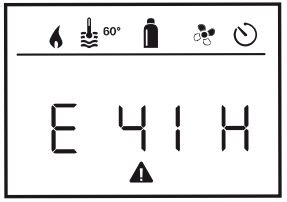
Cause not eliminated / Return to setting mode

- Press the reset button.

In this case, the warning will not be acknowledged on the control panel and the warning icon will continue to be displayed. The control panel will remain in a warning state. Other connected devices can be operated.

Malfunction

If there is a malfunction, the control panel will immediately go to “Malfunction” mode and display the Malfunction error code.



E = Malfunction
41 = Error code
H = Heating

Cause eliminated / Return to setting mode

- Press the adjusting knob / push-button.
- The corresponding device will be restarted.

Due to an internal lag feed in the connected devices, this may take a few minutes.

If the cause has not been eliminated, the malfunction will occur again and the control panel will once again go to “Malfunction” mode.

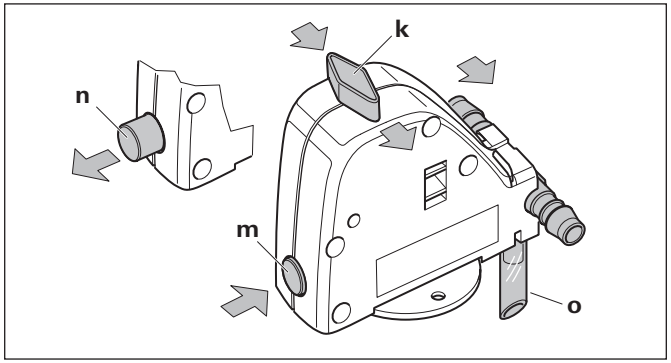
Cause not eliminated / Return to setting mode

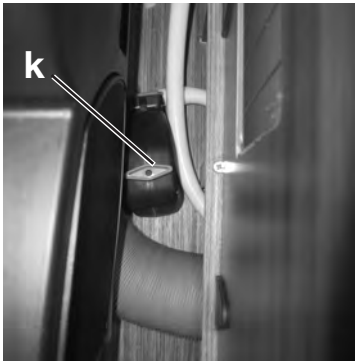
- Press the reset button.

In this case, the malfunction will not be acknowledged on the control panel and the warning icon will continue to be displayed. The device will remain in a state of malfunction. Other connected devices can be operated.

Maintenance

This device requires no maintenance. Use a non-abrasive cloth dampened with water to clean the front. If this is not sufficient, use a neutral soap solution.





FrostControl

FrostControl is a non-electric safety or drain valve. If there is a risk of sub-zero temperatures it automatically drains the content of the boiler via a drain outlet.

If the system is under excess pressure intermittent pressure equalisation will automatically take place via the safety valve. The outlet valve is located by the heating connection in your vehicle (generally in the side seating arrangement next to the entrance door).

k Rotary switch position “ON”
m Push button position “CLOSED”
n Push button position “DRAIN”
o Drain outlet (to the outside through the vehicle floor)

To activate

- Push in the knob at position (**m**) slightly and, at the same time, move it 90° towards position (**k**).
- If the switch is in position (k), the knob will remain in position (**m**).

To deactivate

- Turn the switch at position (**k)** by 90° so that it is parallel to the frost control.
- At the same time, the knob will jump from position (**m**) to (**n**).

The drain valve can only be closed manually using the push button (Position **m**) and the boiler filled if the valve temperature is above approx. 7°C.

If the temperature of the safety/drain valve is lower than approx. 3°C, the push button will be ejected (Position **n**) and the contents of the boiler will be drained off via the drain outlet (**o**).

10.3 Hot-water heating *

You are not permitted to operate the hot water heater while driving.

The LPG heating system Compact 3020 is a hot-water heating system with a separate hot-water heater (contents: 8.5 l). The heating system can heat up even if the hot-water heater has not been filled with fresh water.

Place of installation

- in the clothes cupboard

Please note the following

- Please read the separate operating instructions carefully before initial use of the heating system.
- Always switch the main switch for the heating system off whenever the vehicle is not in use.
- If there is danger of frost, always empty the fresh water out of the hot-water heater.
- The heating system may not be started if it has not been filled with glycol.
- To make the best possible use of the convection principle, nothing must prevent the air from circulating in the motor home, such as behind the back cushions, winter ventilation, in the bed frames and behind the stowage cabinets.

Check the amount of liquid in the expansion tank at regular intervals. When the heating is off, the liquid should be approx. 1 cm above the "Min" mark.

Operating methods

- LPG operation
- heating cartridge operation (230 V)
- combined LPG and heating cartridge operation

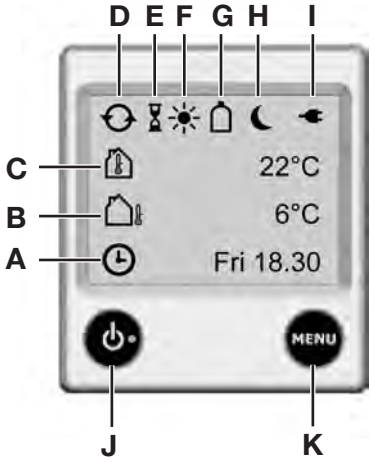
Functionality
- hot-water heater
- heating system and hot-water heater
- heating system

Operating unit
While on standby, you can see which functions have been activated for the heating system; the backlight is switched off. After two minutes, the operating unit switches from the setting position to standby if no key is pressed or if the arrow keys have been used to set it to standby.

Please refer to the separate operating instructions for the „Alde Compact 3020“ for more detailed information on the operation, use and upkeep of the hot-water heater.

If the vehicle is equipped with an LCD control panel, the basic functions of the hot water heating system can be controlled using the panel next to the entrance **(see p. 07-12)**.

To start the hot water heater
To start the heating system, press the On/Off button and the start image will appear. The heater will start with the settings that were last used.



Idle position

A. **Clock.** The clock shows the date and time (when activated).
B. ***Outside temperature.** The outside temperature is displayed.
C. **Inside temperature.** The inside temperature is displayed.
D. **Circulation pump.** This icon is displayed when the circulation pump is in operation.
E. **Starting the heating system automatically.** This icon is displayed when this function has been activated.
F. **Daytime automatic system.** This icon is displayed when this function is activated.
G. ***Liquid gas bottle full/empty.** This icon is displayed when the sensor on the gas regulator of the bottle is connected and has been activated. Is a de-icer* has been installed, the icons will be displayed for the set mode together with the bottle icon.
H. **Nighttime automatic system.** This icon is displayed when this function is activated.
I. **230 volts.** This icon is displayed when a voltage of 230 V is applied to the heating system.
J. **On/Off button.** Main switch for the heating system.
K. **MENU key.** Key for the settings menu.

The functions marked (*) are accessories. They have not been installed in every vehicle.

Settings menu

Start the settings menu by pressing the MENU key. The backlight goes on and those functions that can be set will be displayed. The control unit will switch to the idle position after 30 seconds if the screen is not operated.

Setting the desired temperature

The temperature can be set from +5 °C to +30 °C in steps of 0.5 °C.

1. The temperature shown is the temperature presently set.
2. Raise the temperature by pressing "**+**". Lower the temperature by pressing "**–**".
3. The settings are now finished and the heating will run until the set temperature has been reached.

It is not possible to set any temperature if the daytime or nighttime automatic system is in operation. The plus and minus icons are then greyed out.

Hot water

The boiler can also be used even if it has not been filled with fresh water.

1. **No hot water. I**f you do not need hot water, press **"-".**
   (The icon is empty.)

> It is not possible to make any settings for hot water if the daytime or nighttime automatic system is in operation and you have switched off the hot water. The plus and minus icons are then greyed out.

2. **Normal operation.** If there is fresh water in the tank and you would like to have hot water, press **"+".**
   (The icon is half full.)

> If the "Operation" function for the pump has been set to "Cont", you cannot select this.

3. **More hot water.** Should you need more hot water, you can temporarily increase the water temperature to approx. 65 °C. Press the plus key **"+".**
   (The icon is full.)

   After 30 minutes, the hot-water heater will switch back to normal operation. If you have selected more hot water, the circulation pump will continue to operate.

> If the "Operation" function for the pump has been set to "Cont", the function "Permanent pump operation" will be disabled for 30 minutes, but then returns to permanent pump operation.

> You do not need to make any settings if you only require hot water, for example in summer when no further heating is required. The heating system will control this function automatically.

Heating with electricity

Use the following procedure to activate the "Heating with electricity" function. The higher the selected output, the faster the camper will heat up.

If electricity and gas are selected together, you can set whether gas or electricity is to take priority **(see Tools menu**). The boiler uses no higher output than is required, even if 3 kW has been selected.

1. Starting and changing the different heating levels step by step (**Off, 1 kW, 2 kW or 3 kW**) with **"+"** or **"-"**. The value set will be displayed on the screen. When activated, the plus icon is shown in green.

2. To switch off the electric heating operation, keep pressing the "-" key until you reach **Off**.

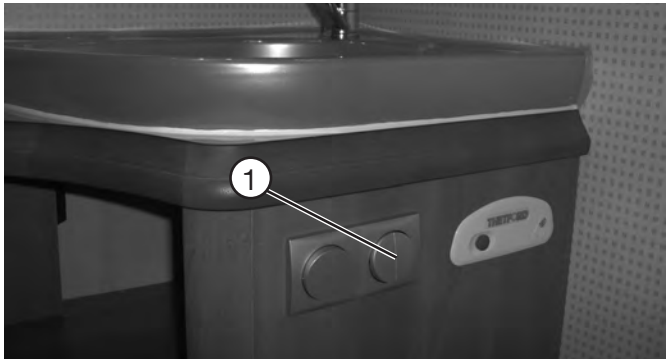
.

Heating with gas

To activate heating with gas:
If electricity and gas are selected together, you can set whether gas or electricity is to take priority (**see Tools menu**).

1. Start gas operation by pressing on the liquid gas flame. The icon for liquid gas is activated and turns green.

2. To switch off gas operation, press the liquid gas flame. The icon is now blue.



Wash room

Since the convector heater in the wash room must be mounted behind the external panel and, therefore, there is no guarantee that the air can circulate sufficiently, a fan has been provided to circulate the hot air in the room. This fan can be activated in two stages using the switch ①.

10.4 Refrigerator

Refrigerators made by Dometic will be installed.

If the external temperature is high, full refrigerating capacity can only be ensured by means of sufficient ventilation. If necessary, to achieve better ventilation, the refrigerator's ventilation grille can be removed at the caravan.

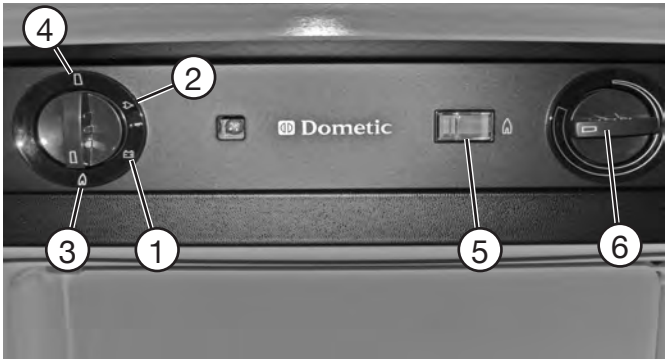
⚠ Please refer to the manufacturer's separate operating instructions before using the refrigerator.

Locking Slim Tower

Refrigerator door lock

⚠ While driving, the refrigerator door must always be closed and locked.

Slim-Tower:
To close the slim tower, pull on the handle, press against the door and then let the handle go.



Modes of operation

Three modes of operation are possible for the refrigerator.

12 V operation

12 V operation can only be used while driving, when the motor is running. When resting or if you have stopped for a longer period of time, turn off the 12 V operation and, if required, select another mode of operation.

- Turn the energy selector switch to battery operation ①.
- 12V operation will only function if the vehicle's motor is running.

- The refrigerator runs without a thermostatic control (continuous operation). 12 V operation should, therefore, only serve to maintain a temperature which has already been achieved.
- To turn the refrigerator off turn the energy selector switch to the O position ④.

230 V operation

- Turn the energy selector switch to mains ②.
- Use the thermostat ⑥ to regulate the temperature. No absolute temperature values have been assigned to the temperature levels.
- To turn the refrigerator off turn the energy selector switch to the O position ④.

Gas operation

- Turn the energy selector switch to gas operation ③.
- Open the main stop valve on the gas cylinder and the “Refrigerator” gas stop valve.
- Turn the thermostat ⑥ to the highest setting and keep it pressed down. The refrigerator either ignites automatically or by pushing the button for manual ignition several times (model-specific).
- If gas operation has been activated, then the indicator in the control window will move into the green zone ⑤. Only release the button when the the indicator is in the green zone.
- Use the thermostat ⑥ to regulate the cooling capacity. No absolute temperature values have been assigned to the temperature levels.
- To turn the refrigerator off turn the energy selector switch to the O position ④
- Close the main stop valve on the gas cylinder and the “Refrigerator” gas stop valve.

It is not permitted to operate the refrigerator with gas
- at petrol stations
- while driving
- while the vehicle is being transported by means of a transport or towing vehicle.

This may cause a fire.

Storing food

- Food should always be stored in closed containers, aluminium foil or similar materials.
- Never store heated food in the refrigerator; always let it cool off first.

- Goods that might emit readily volatile or flammable gases must not be stored in the refrigerator.
- Always store perishable food directly next to the cooling fins or as close to the bottom of the refrigerator as possible.

The freezer compartment is suitable for making ice cubes or for storing frozen food for a short period of time. It is not suitable for freezing food.

It is not suitable for freezing food nor for the proper storage of medication.

Environmental conditions influence the performance of the refrigeration unit. The system reacts sluggishly to changes in the thermostat regulator, loss of cold when opening the door or storing goods. Use the winter cover if the temperature is below +10°C (Dometic accessory).
If the temperature stays above +32°C, an additional fan (Dometic accessory) should be installed

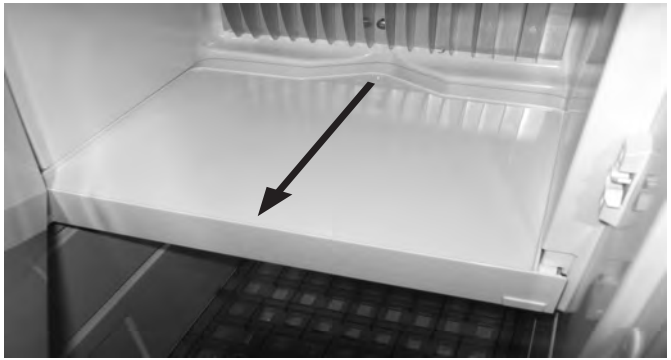
Turn on the refrigerator at least 12 hours before putting anything in it and, if possible, store only goods that have already been cooled.

Removable freezer (Slim Tower)

To make the best use of space, the freezer can be removed.

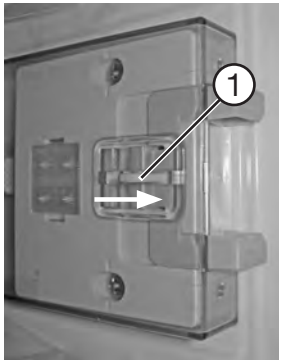
To remove the freezer

- Fold down the locking clamps underneath the freezer.
- Push both clamps towards the middle.
- Pull the freezer slightly out.
- Unhinge the door.
- Remove the floor panel of the freezer.



Information on removing the freezer is also given on the freezer door.

Normal position



Ventilation position

If not in use for a longer period of time, the refrigerator should be switched to the ventilation position to prevent bad odours.

To activate the ventilation position, light press on the slider ① to pull it forwards.

10.5 Gas cooker

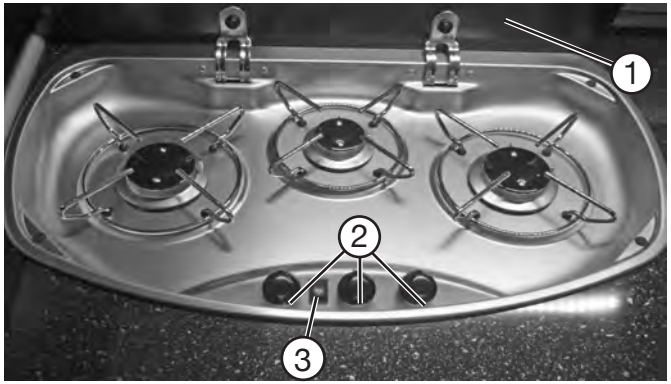
The kitchen in the motor home is equipped with a gas cooker with three burners.

Before initial operation

- Open the bottle valve and the quick-action stop valve in the gas pipe.
- Open the skylight or the kitchen window
- Ignition points which must be pressed for ignition when turning on the gas device should spring back to their original position after being pressed.
- The sockets above the cooker may not be used when cooking. Shut the protective caps.

⚠ Never use the cooker or other devices extracting combustion air from the interior of the vehicle to heat the vehicle. If this is ignored there is an acute risk to life due to a lack of oxygen and the odourless carbon monoxide which could be generated.

⚠ Do not operate the cooker when the glass covering is closed.



Operation

- Use the main switch on the Control Panel to turn on the 12V power supply.
- Open the tinted glass covering ①.
- Turn the adjusting knob ②of the burner you wish to use to the ignition position (large flame), press it and hold it pressed.
- Use the igniter ③ to ignite the flame; keep pressing the igniter ③ until the flame goes on.
- Continue to press the rotary switch ② for a further 5-10 seconds to ensure that the automatic flame guard takes effect.
- Release the rotary switch ② and turn to the desired setting (large or small flame).
- If ignition was unsuccessful, repeat the procedure.
- To turn off the gas flame, turn the rotary switch ② back to the “0” position
- Close the main gas stop valve on the gas cooker.

Use oven gloves or potholders when handling hot pots, pans or similar objects. You may be burned!

Never allow gas to escape without burning. Danger of explosion!

After cooking, leave the glass cover ① open until the burners stop giving off heat. Otherwise, the glass cover could burst.

Never store easily flammable objects such as dishtowels, serviettes, etc. near the cooker. Danger of fire!

10.6 Oven *

- The ventilation openings on the oven must never be closed.
- A skylight or window must be opened when operating the oven.
- Open the shutoff valve for the oven. Should you smell gas, immediately close the valve and the gas bottles.
- The oven door must remain open while igniting the oven.
- Never operate the oven when it is empty (i.e., without food that is to be heated).
- Never use the oven to heat the caravan.
- Under no circumstances may this device be plugged into the 230V mains!
- Never operate the oven while driving!

Please refer to the separate manufacturer's operating manual.

- Switch on the 12 V power supply using the main switch on the control panel.
- Open the main shutoff valve on the gas bottle and the gas shutoff spigot marked “oven”.
- Open the oven door completely.
- Position the baking tray or grill so that it is not in direct contact with the flame.
- Lightly press on the adjusting knob ① and turn it to the desired ignition position.

- Press the adjustable knob ① . Gas will flow to the burner and the ignition ② will light the flame.
- Keep pressing the adjustable knob ① for 10 seconds until the ignition safety valve keeps the gas supply open.
- Let go of the adjusting knob ① and turn it to the desired temperature. The flame must burn steadily. The colour should be mainly blue and the flame should have a clear outline.
- After approx. one minutes, carefully close the oven door so that the flame does not go out.

- If it has not ignited, repeat this procedure from step 1.
- Should the flame on the burner accidentally be extinguished, turn the switch back to the neutral position and leave the burner off for at least one minute before igniting it again.

Turning off the oven

- Turn the adjustable knob ① to the zero position.
- Close the main shutoff valve on the gas bottle and the gas shutoff spigot marked “oven”.

10.7 Fume Hood *

As an option, the kitchen can be fitted with an extractor fan. The built-in fan blows kitchen odours directly outside. The control panel is located above the first kitchen drawer.

Press the right button to turn on the fume hood. Hold the fan button firmly to select the speed of the fan from among 15 different speeds.

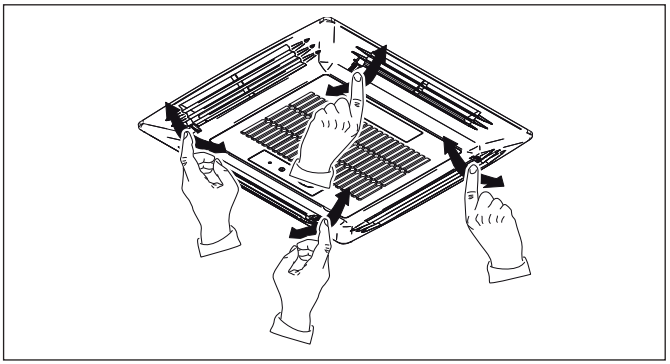
The kitchen light, which is operated via the control panel, can also be switched on using the left button.

Clean the filter of the fume hood regularly, as it collects fat from kitchen odours.

10.8 Rooftop Air Conditioning *

The air conditioner is located instead of the roof window on the living room ceiling.
To operate the air conditioner correctly and optimize its performance, you should observe the following:

- Ensure sound thermal insulation; seal chinks and cover up glass areas.
- Avoid opening doors and windows unnecessarily.
- Do not plug or cover up air intakes and openings.
- Do not spray water into the air conditioner.
- Keep all easily inflammable material away from the system.



To set the direction of ventilation
The air supply within the vehicle can be regulated by setting the air nozzles.

Chapter 11: Accessories

Note the detailed operation instructions, installation instructions and circuit diagrams from the manufacturers when using accessories. These are located in your service package.

- Any changes to the status of the mobile home as set by the manufacturer may endanger the driving performance and roadworthiness of your vehicle.
- Any accessories, add-ons, modifications or mounted parts that have not been approved by HOBBY may cause damage to the vehicle and impair its roadworthiness. Even if an expertise, general type approval or design approval has been provided for these parts, this does not ensure the orderly condition of the product.
- HOBBY cannot accept liability for any damages caused by parts or changes that have not been approved by HOBBY.

The following table includes a list of weights for accessories. If these parts are carried in or on the mobile home and are not included in the standard scope of delivery, they must be taken into consideration when determining the full load.

Object	Weight[kg]
Base vehicle/Chassis	
Air-conditioning in the driver's cab*	18.00
Bumpers, front, painted colour of vehicle	2.00
Comfortmatic (automatic transmission) only in connection with 148 PS and 177 PS engine	17.00
Cruise control*	0.20
Diesel tank, 120 litres instead of 90 litres	28.00
Electric wing mirror*	1.50
ESP incl. ASR and hill holder	0.50
Fog lights	2.00
GOLDSCHMITT additional pneumatic suspension, one-circuit system,incl. load increase to 4.0 t (the trailer load is reduced to 1,850 kg)	12.00
Hub caps	2.40
Leather steering wheel and gear knob	0.50
Light alloy rims 16"*	0.00
Load increased from 3.5 t to 3.65 t without technical changes (the trailer load may be reduced by the load)	0.00
Load increased from light chassis to maxi chassis	40.00
Metal wheel rim 16"	16.00
Mud flaps, rear	2.00
Pre-installation of radio with loudspeakers*	2.00
Tow coupling	35.00

Object	Weight[kg]
Driver's cab	
Dashboard with aluminium applications	0.00
Superstructure	
Bicycle carrier (also suitable for eBikes)	25.00
Bicycle carrier for 2 bicycles	8.00
Bicycle carrier for 3 bicycles	9.00
DOMETIC-SEITZ roof bonnet Midi Heki 700 x 500 mm instead of Mini Heki at the rear	4.50
DOMETIC-SEITZ roof bonnet Midi Heki, electrically driven instead of Mini Heki at the rear	5.50
Roof rail (not in connection with roof awning)	6.00
Tail stanchions	6.00
THULE-OMNISTOR awning 350 cm*	27.00
THULE-OMNISTOR awning 400 cm	31.00
Living room	
Bedspread and decorative pillow	1.50
Leather seating arrangement (cream white or cream white and brown)	2.00
Upholstery combination, if requested from PREMIUM upholstery collection	0.00

Object	Weight[kg]
Furniture conversions	
L-shaped seating arrangement w/ luxury living room table, swivels 360°	15.00
Luxury living room table, swivels 360°	10.00
Kitchen	
Fume hood	3.00
Oven	16.00
Sleeping area	
Additional cushion for converting seating arrangement into a bed	2.00
Bed expansion in connection with FROLI comfortable bed system	3.10
Bed expansion incl. add. cushion and ladder*	4.80
FROLI comfortable bed system	2.70
Bathroom	
Folding seat in shower	2.10
Water/gas/electricity	
Additional AGM battery 12V / 92 Ah	28.00
External socket (230V)	0.40
Gas socket, external	1.50
Outside shower	0.50
Remote indicator for DuoControl	0.30
TRUMA DuoControl incl. crash sensor and de-icer	2.10
TRUMA MonoControl CS (crash sensor)	1.00
USB charging socket, double	0.00
Wireless alarm system with gas alarm for narcotic gases, propane and butane	1.00
WLAN control for LCD Control Panel	0.00
Heating/air-conditioning	
ALDE hot-water heater Compact-3020	29.00
DOMETIC roof air-conditioning system	30.00
TRUMA heating Combi 6 E instead of Combi 6	1.10
Multimedia	
2 additional loudspeakers in the living area	2.00
CD/radio	1.50
Extendable shelf for flat screen TV	3.00
LED flat screen 19" incl. tuner/receiver and DVD player	5.90
Navigation system incl. rear view camera*	4.70
Reverse drive video system with flat screen	2.00
SAT receiver, digital, 12 V	2.00
TELECO SAT antenna with autom. orientation 65 cm, 12 V / 230 V	16.00
TELECO SAT antenna with autom. orientation 85 cm, 12 V / 230 V	18.00

* standard equipment in the Renault Van Anniversary Edition model

Chapter 12: Maintenance and Care

12.1 Maintenance

Maintenance intervals

There are stipulated maintenance intervals for the motor home and its equipment.

The following applies for maintenance intervals:

- Have the first maintenance carried out by a HOBBY dealer 12 months after the vehicle was first registered.
- All further maintenance should be carried out once a year by a HOBBY dealer.
- The maintenance of the basic vehicle as well as all built-in equipment should be carried out at the intervals given in each operating manual.

Also note the maintenance intervals for the basic Fiat and Renault vehicle.

The gas fittings must be checked every 2 years by an expert for LPG and confirmed on the certificate in accordance with DVGW G 607 and EN 1949.

The operator of the vehicle is responsible for having maintenance carried out on schedule.

Replace the safety regulator for gas at least every 6 years!

For safety reasons, spare parts for equipment must conform with the manufacturer‘s instructions and must be installed by him or a duly authorised representative.

Hobby recommends that you contact a service partner before driving there and inquire whether they have the necessary capacity (e.g. an adequate car lift) in order to avoid any misunderstanding.

12.2 Brakes

The components in the brake system are part of the General Type Approval (“Allgemeinen Betriebserlaubnis“, ABE).
If you change the components in the brake system, the type approval expires. Any changes are only possible if they have been released by the manufacturer.

It is in your own interest to have the brakes checked regularly by your Fiat or Renault workshop.

The following applies when maintaining the brake system:

- Check the level of brake fluid regularly.
- Check the brake system and brake hoses regularly for leakage. Rodents often gnaw at rubber hoses.
- Use only brake fluids with the same qualities as those fluids already in the brake circuit.

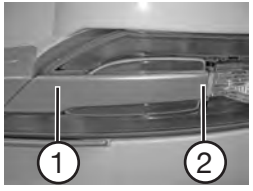
For further information, please refer to the Fiat Ducato or Renault Master operating instructions.

12.3 Changing the taillight bulbs

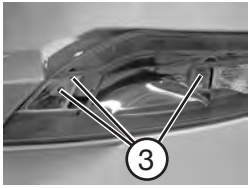
The following is a description of how to change the bulbs in the direction indicator (blinker) and rear lights.

The rear lights in the Premium models are fitted with LED lights, whereby each individual light has a standardised alignment remove german. Einzelne LED-Lampen dürfen daher aus genehmigungstechnischen Gründen nicht ausgetauscht werden, bei einem Defekt muss das komplette Rücklicht getauscht werden.

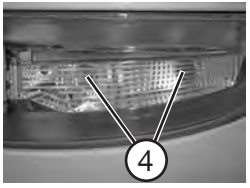
Rear light with LED



- To change the bulbs: start by carefully removing the cover ① at the indicated place ② by clipping it out of the retainer.



- Then unscrew the 3 screws ③ in order to remove the rear light and expose the bulbs.



- Simply unscrew the defect bulb ④ from the socket and replace it.
- Carry out this procedure in reverse to put everything back in place.

12.4 Airing

For a comfortable climate inside the motor home, there must be sufficient ventilation. This also avoids corrosive damage due to condensation.

Condensation is caused by

- insufficient volume inside the motor home
- breathing and perspiration of the passengers
- bringing in damp clothing
- operating a gas cooker

Ensure that there is a sufficient exchange of air to avoid damages due to the build-up of condensation!

12.5 Care

The following applies for their care:

- Clean plastic parts (e.g. fenders, skirts) with water of up to 60° C and mild household cleansers.
- Clean greasy or oily surfaces with spirits.

Wash the vehicle only in places provided for this purpose.

Using cleaning materials sparingly. Aggressive cleansers, such as wheel rim cleaners, damage the environment.

Use only dishwashing liquid or commercial cleaning agents, always taking care to follow the instructions for use, and test the cleaning agent to make sure it is suitable.

Cleaning products not recommended for use:

- abrasive cleaning agents (scratch the surface)
- cleaning agents that contain acetone (immediately damage the plastic)
- dry cleaning products
- diluents

- alcohols
- aggressive or solvent-based cleaners
- cleaners from the chemical group such as ketone, ester and aromatic solvents
- aromatic hydrocarbons (e.g. all automotive fuels)

Direct contact with plastics such as PVC, soft PVC and similar products (e.g. stickers) must be avoided at all cost.

It is not possible to avoid transmitting plasticizers when solvent-based contents come into contact with the aforementioned plastics and this causes the parts to become brittle.

Cleaning the exterior

The vehicle should not be washed more often than necessary.

The following applies when cleaning the exterior:

- Rinse the vehicle with a weak jet of water.
- Wash the vehicle with a soft sponge and a commercial shampoo solution. Rinse the sponge often.
- Then rinse with a generous amount of water.
- Dry the vehicle with a suede cloth.
- After washing the vehicle, leave it standing outside to dry off completely.

Dry the headlights and sockets thoroughly, as water collects there easily.

Washing with a high pressure cleaner

Do not spray stickers and external decors directly with the high pressure cleaner as they could peel away as a result.

Before washing the motor home with a high pressure cleaner, study its operating manual carefully. During washing maintain a minimum distance of 700 mm between the motor home and the high pressure cleaner. Please note that the water jet is under pressure when it comes out of the cleaning nozzle. Incorrect handling of the high pressure cleaner can result in damage to the motor home. The water temperature should not exceed 60°C. Keep the water jet moving while washing. The spray from the high-pressure cleaner must never be pointed directly at the cracks of the doors or windows, acrylic windows, ventilation grills in the refrigerator, service flaps, waste gas flues or skylights. This may damage the vehicle or water could get inside the vehicle.

The following applies when waxing the surfaces:

- The varnished surfaces should be treated occasionally with wax. Follow the application instructions given by the wax manufacturers.

The following applies when polishing the surfaces:

- In exceptional cases, use polish to refinish weathered varnished surfaces. We recommend solvent-free polishing paste.

Use polish only in special cases and as seldom as possible, because polish removes the top layer of varnish. Frequent polishing causes extreme wear.

The following applies for tar and resin stains:

- Tar and resin stains as well as other organic stains can be removed with petroleum ether or spirits.

Do not use aggressive solutions such as products containing ester or ketone.

The following applies for damages:

- Repair damages immediately to avoid further damages due to corrosion. Ask your HOBBY dealer for assistance.

Chassis

The undercarriage of the mobile home has been specially coated. If the protective coating is damaged, repair it immediately. Coated areas should not be treated with spray oil.

The combustion air intake duct for the heating system is located underneath the floor of the vehicle. Under no circumstances may liquid sprays, underbody protection or similar products be allowed to interfere with it.

Skylights, windows and doors

Window panes require particularly careful treatment.

The following applies for their care:

- Rub the rubber seals around doors and windows lightly with talcum powder.
- Clean acrylic glass panes only with a clean, wet sponge and a soft cloth. Cleaning with a dry cloth may scratch the panes.

Wash panes only with pure water. Never use aggressive cleaning agents that include softeners or solvents!

You will find talcum powder in auto accessory shops.

Cleaning the interior

To reduce problems arising from dampness, use water sparingly when cleaning inside.

The following applies for cushions, upholstery and curtains:

- Clean cushions with a soft brush or hoover.
- Have very dirty upholstery and curtains dry-cleaned. Do not wash them yourself!
- If necessary, wash them carefully using the foam from mild-action detergent.

Cleaning instructions for materials that containTeflon

- Always treat spots immediately.
- Sponge spots, but do not rub them.
- Work from the edge towards the middle of the spot.
- Never use household cleaners to remove spots.
- Hoover cushions regularly to remove any dirt that may have collected.

We recommend the following methods for cleaning:
Method A:

- Use only commercial cleaning agents that have a water basis.
- Alternatively, add two tablespoons of ammonia to 1 litre. Dip a cloth into this solution and gently sponge the spot. Turn the cloth over so that you are using a clean cloth to touch the spot.

This method is particularly suitable for removing:
- wine, milk, lemonade
- blood
- biro, ink
- urine, sweat
- mud
- vomit

Method B:
- Use only mild, water-free solvents for dry cleaning.
- Dampen the cloth and proceed as described in method A.

This method is particularly suitable for removing:
- wax, candles
- pencil

Chocolate or coffee should only be washed out with luke-warm water.

The following applies for carpeted floors:
- Clean with a hoover or brush.
- If necessary, treat with carpet shampoo or a shampooing machine.

The following applies for the PVC flooring:

Sand and dust can damage the surface of PVC flooring that is walked on regularly. When in use, clean the floor daily with a Hoover or a broom.

- Use cleansing agents for PVC floors and clean water when washing the floor. Do not place fitted carpets on a wet PVC floor, as the fitted carpet and the PVC flooring could become glued together.
- Never use chemical cleansing agents or steel wool, because this will damage the PVC flooring.

The following applies for furniture surfaces:
- Clean the surface of wooden furniture with a damp cloth or sponge.
- Rub dry with a dust-free cloth.
- Use mild furniture polish.

Never use strong cleansers or intensive furniture polish, because this could scratch the surface!

The following applies for the toilet:
- Clean with a neutral liquid cleanser and a cloth that does not scratch.
- Do not use a vinegar concentrate to clean the toilet and the water system or to decalcify the water system. Vinegar concentrate can damage gaskets or parts of the system.

- The rubber seals of the toilet should be cleaned regularly with plain water and a lubricant for seals (not Vaseline or any other vegetable fats) should be applied. Applying this regularly to the washer of the valve and other seals in the toilet will ensure that they stay flexible and function longer.

Do not pour any corrosive substances down the drains. Do not pour boiling water down the drains. Corrosive substances and boiling water damage drain pipes and syphons.

The following applies for the sink and the cooker:

- Clean stainless steel parts with normal household cleaners or special stainless steel cleansing agents.

The following applies for built-in equipment:

- The glycol mixture in the hot-water heating * system should be replaced every two years, because certain properties such as protection against corrosion deteriorate.
- The space behind the refrigerator should be hoovered and cleaned regularly. The ventilation grille should also be kept clean. The door seal should be rubbed once a year with talcum power to keep it supple and the expandable fold should be checked for tears.
- The filter in the fume hood* must be cleaned occasionally, because cooking fat collects there. We recommend that you use warm water with a bit of dishwashing liquid to clean it.

Remove all spray cans with cleaners and polishes from the vehicle after finishing the upkeep! Otherwise, there is a danger of explosion at temperatures over 50° C!

Accessories

- If necessary, lubricate leveling supports*.

12.6 Winter Lay Up for the Motor home

For many people, the camping season ends when the temperature starts to fall. Your mobile home must be properly prepared for its winter lay up.

The following general rules apply:

- Only leave your mobile home in a closed space if it is dry and well-aired. Otherwise, it is better to leave your motor home in the open.
- To protect the tyres, jack up the mobile home or move it slightly to a new position every two months.
- Close all gas bottles and emergency shutoff valves.
- Disconnect (or, ideally, remove) the battery and store it safe from frost. Check it about once a month to see if it is still charged; if not, charge it.
- Check the antifreeze in the cooling system and, if necessary, top it up.
- Leave space between tarpaulins and the camper so as not to hamper ventilation.

The following applies for the external structure:

- Wash the mobile home thoroughly (**see 12.5**).
- Check the vehicle for damages to the varnish and other damages. If necessary, repair these damages and carry out any other necessary repairs.
- The exterior should be treated with wax or a special polish for varnish.
- Use a protective agent to protect the metal parts of the chassis against rust.
- Check the chassis for damage and, if necessary, repair it.
- Ensure that no water can get into the venting on the floor, heating system and refrigerator venting (mount winter covers*).

The following applies for tanks and containers:

- Clean, disinfect, descale and completely empty all water pipes and faucets. Leave faucets open.
- Clean the fresh water tank and empty it by unscrewing the overflow pipe.
- Clean and empty the waste water tank.
- Clean and empty the toilet flushing tank and the excrement tank. Clean the toilet valve, apply a lubricant for seals and leave it open.
- Completely empty the therme/boiler.
- If your motor home is equipped with a hot-water heater: rinse the water heater thoroughly and empty all of the water.

The following applies for the interior fittings:

- Clean the interior of your motor home. Hoover carpets, cushions and mattresses. If possible, store them outside the mobile home. Otherwise, place them in such a way inside the vehicle that they do not come into contact with condensation.
- Use soapy water to clean linoleum and smooth surfaces.
- Empty and clean the refrigerator. Leave the refrigerator door in the ventilation position (see **10.6**).
- After cleaning them, leave stowage spaces, cupboards, drawers and furniture flaps open to facilitate air circulation.
- Leave vents for forced ventilation open. If the mobile home is kept in a closed space, you can leave the skylight open.
- Air the mobile home thoroughly every four to six weeks when the weather is dry.
- Set up a dehumidifier (such as salt) inside the motor home and dry the granulate or change it regularly.
- Open the battery's circuit breaker.
- If necessary, heat the camper to prevent the build-up of mould from condensation.
- Switch off the 12 V main switch.

12.7 Winter Operation

Preparations

Your motor home has been designed to allow you to use it to a certain extent in winter. If you really wish to camp in winter, we recommend that you optimize your motor home to meet your personal requirements. Your dealer will be pleased to advise you.

The following applies for your preparations:

- Check the vehicle for damage to the paintwork or from rust and, if necessary, repair it.
- Ensure that water cannot run into the ventilation and de-aerating and heating systems.
- Use a wax-based protective agent to protect the metal parts of the undercarriage against rust.
- Preserve varnished external surfaces with suitable agents.
- Fill the petrol tank with winter diesel; check the antifreezer in the windshield cleaning unit and the coolant.

The following applies for ventilation:

During operation in winter, condensation is caused when using the camper in low temperatures. Sufficient ventilation is extremely important to ensure that the quality of the air inside the camper is good and to avoid damages to the vehicle caused by condensation.

- Do not shut vents for forced ventilation.
- Set the heating to maximum power when heating up the motor home. Open stowage spaces, cupboards, drawers, furniture flaps, curtains, shades and plissés. This enables you to achieve optimum ventilation and de-aerating.
- Only heat the motor home when the recirculation air system is switched on.
- Every morning, air all of the cushions, mattresses and stowage spaces and dry any damp spots.
- Air thoroughly with fully opened doors and windows several times a day.
- If the outside temperature is under 8° C, winter covers* should be mounted over the ventilation grilles of the refrigerator.

If, despite all of these measures, condensation forms, simply wipe it away.

Before entering the vehicle, remove the snow from your clothes and shoes to prevent an increase in humidity.

The following applies for heating:

- Both the air intake as well as the exhaust gas openings of the heating system must be kept free of snow and ice.
- It takes longer to heat up the motor home in winter, especially to heat hot water.
- Do not let the interior cool down completely when you are away or at night; set the heating to low and leave it on.

Continue to heat the vehicle while you are sleeping!

- The motor home uses considerably more gas in winter than in summer. Two 11 kg bottles of gas will be used up in just under one week.
- Therefore, should you stay longer in one place, it is worthwhile to set up an outer tent. It will help to acclimatise the motor home and keep the dirt out.

The following applies for tanks and containers:

- If the interior is sufficiently heated, the fresh water tank, water pipes and therme/boiler should not freeze. Fill all of the water containers only after the interior has been thoroughly heated.
- When the heating is on, the waste water tank is heated. In severe frost, also add an anti-freezing compound or table salt to the waste water. If the vehicle is not being used, the waste water tank must be emptied completely.

- The toilet can be used normally, even in cold weather, as long as the interior of the motor home is heated. The excrement tank should be emptied if there is danger of frost.

At the end of the winter season

The following applies for the care of the vehicle:

- Thoroughly wash the underbody and the motor. This removes corrosive thawing agents (salts, alkali).
- Clean the exterior and use normal car wax to preserve metal parts.
- Do not forget to remove flue extensions, cover panels on refrigerators, etc.

Saving energy in winter

It is very easy to save energy inside your motor home. This applies especially to heating in winter.

The following applies for saving energy:

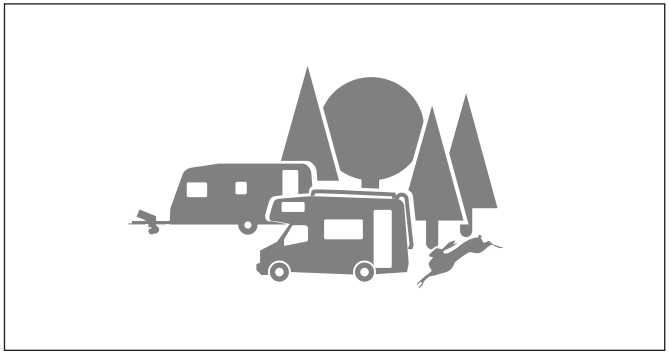
- Meter the exact use of ventilation in the vehicle and the heating valve.
- Install winter mats on the inner sides of the driver‘s cabin and the windscreen (not included in scope of delivery).
- Attach the insulating mat between the driver‘s cab and the interior of the motor home (not included in scope of delivery).
- Open the outside door as seldom and briefly as possible.
- If you are camping in winter, attach a small outer tent. This will offer protection against the cold.

Chapter 13: Sanitation and Environmental Protection

13.1 The environment and traveling

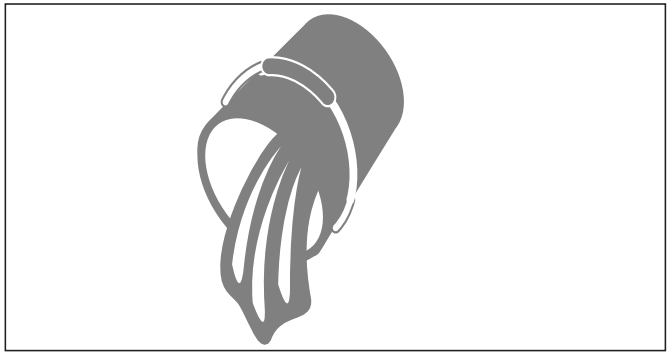
Environmentally fair use

It is only natural that owners of motor homes and caravans have a special responsibility for the environment. Always use your vehicle in an environmentally friendly way.



The following applies for environmentally fair use:

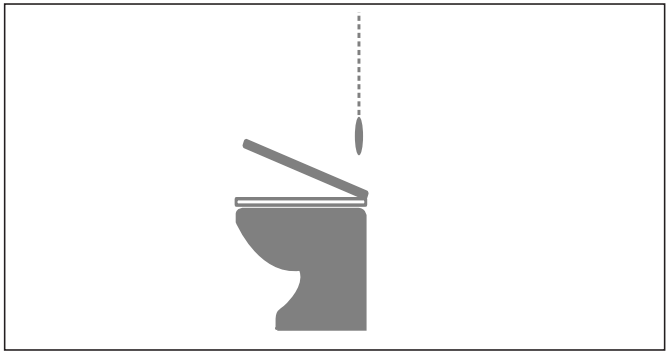
- When spending longer periods in towns and cities ask about specially designated campsites for motor homes and use them.
- Do not spoil the peace and cleanliness of nature.
- Dispose of wast water and rubbish in the proper way.
- Set an example so that motor home and caravan drivers are not generally held to be pollutionists.



The following applies for waste water:

- Collect waste water on board only in built-in waste water tanks or, if necessary, in suitable containers!
- Never empty waste water in open spaces or down manholes! Generally, the public waste water system does not run through clarification plants.
- Empty your waste water tank as often as possible, even if it is not completely full (hygiene). If possible, rinse out the waste water tank with fresh water after emptying.

Only empty your waste water tank in special places for waste water disposal, but never in open spaces! Generally, waste water stations are found in motorway service areas, campsites or petrol stations.



The following applies for wastes:

- Only use approved sanitary cleansing products in the waste tank.

You may be able to avoid the use of sanitary liquids by installing an activated carbon filter system (sold as an accessory)!

Use sanitary liquids very sparingly. An overdose is no guarantee of preventing odours!

Sanitation

- Never allow the waste tank to become too full. Empty the tank immediately as soon as the level indicator lights up.
- Never empty wastes down manholes! Generally, the public waste water system does not run through clarification plants.

Empty the waste tank in special places for sanitary disposal, but never in open spaces!

The following applies for waste:

- Separate your waste and put appropriate materials in the recycling bins.
- Empty waste bins as often as possible in the appropriate bins or containers. This avoids unpleasant and problematic waste from building up on board.

The following applies for picnic spots:

- Always leave picnic spots clean and tidy, even if you dispose of someone else‘s waste.
- Do not let the vehicle's engine run unnecessarily while the vehicle is standing still. When the transmission is in neutral, a cold engine generates more harmful emissions. The quickest way for the engine to reach its operating temperature is while driving.

Careful use of the environment is not only in the interest of nature, but also of motor home and caravan drivers everywhere!

13.2 Returning the vehicle

If you should ever have to give up your motor home and have it recycled, the manufacturer of the basic vehicle is responsible for taking it back (status at the time of printing).

This means that your HOBBY motor home must be taken back free of charge by any Fiat or Renault dealer and expertly recycled.

Chapter 14: Technical Data

14.1 Chassis Data

Hobby Modell	Model	Type	Base vehicle	Motorisation[5] Model	exhaust gas emissions	Chassis	Frame extension	Towbar Sawiko				
								Type	Reinforcement	Rear crossbar	Trailer coupling	Spherical head
FIAT Ducato X290												
65 HFL	Premium Drive	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	207355 straight	MT026	---	---	30PEI20020-P	Typ 04 (3009000400)
70 GE	Premium Drive	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P0100000 lowered	MT030	31TEV4001P	31TE14001P	---	Typ 04 (3009000400)
70 HGE	Premium Drive	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P0100000 lowered	MT030	31TEV4001P	31TE14001P	---	Typ 04 (3009000400)
70 HQ	Premium Drive	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	207354 straight	MT026	---	---	30PEI20021-P	Typ 04 (3009000400)
RENAULT Master X62												
65 GE A.Ed.	Premium Van	R1	Master	2,3 dCi 125 FAP (92 kW)	Euro 5b+	Plattform L3 H1	207100 straight	MT047	21PV040001	30VR100003-P	---	Typ 04 (3009000400)

All measurements in [mm] all weights in [kg]

1) Trailer load for technically permitted gross vehicle weight of 3,650 kg is reduced to 1,900 kg; for technically permitted gross vehicle weight of 4,250 kg it is reduced to 1,800 kg, for technically permitted gross vehicle weight of 4,400 kg to 1,750 kg.
2) without wing mirror, without side blinker
3) tow coupling is a special accessory
4) rear edge of traction unit to rear edge of back wall
5) FIAT: 115 Multijet: 85 kW (115 PS); 130 Multijet: 96 kW (130 PS); 150 Multijet: 109 kW (148 PS); 180 Multijet: 130 kW (177 PS) RENAULT: 2,3 dCI 125 FAP 92 kW (125 PS); 2,3 dCi 150 FAP 110 kW (150 PS)

VELO holding fixture	Seats	t.p.o.w. [kg]	Permiss. front axle load	Permiss. rear axle load	Unbraked trailer load[3)]	Braked trailer load[3)]	Max. permissible drawbar load[3)]	Maximum towing weight	Length of super-structure[4)]	Total length	Height	Width[2)]	Front tread width	Rear tread width	Wheel base	Front projec-tion	Rear projec-tion
FIAT Ducato X290																	
21PE02020P	4	3500	1850	2000	750	1600	75	5100	4503	6994	2770	2340	1810	1980	4035	948	2011
21TE04001P	4	3500	1850	2000	750	2000[1)]	80	5500	4953	7444	2730	2340	1810	1980	4035	948	2461
21TE04001P	3	3500	1850	2000	750	2000[1)]	80	5500	4953	7444	2770	2340	1810	1980	4035	948	2461
21PE02021P	3	3500	1850	2000	750	1600	75	5100	4953	7444	2770	2340	1810	1980	4035	948	2461
RENAULT Master X62																	
21VR02003P	4	3500	1850	2100	750	2000	80	5500	4523	7116	2660	2140	1750	1860	4332	842	1942

14.2 Load increased for motor homes

Hobby Model	Model	Type	Base vehicle	Seats	t.p.o.w. [kg]	Permissible front axle load	Permiss. rear axle load	Unbraked trailer load[2)]	Braked trailer load[2)]	Max. permissible drawbar load[2)]	Maximum towing weight
FIAT Ducato X290											
65 HFL	Premium Drive	F3	Ducato Light	4	3650	1850	2000	750	1600	75	5250
70 GE	Premium Drive	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
70 HGE	Premium Drive	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
70 HQ	Premium Drive	F3	Ducato Light	4	3650	1850	2000	750	1600	75	5250
65 HFL	Premium Drive	F3	Ducato Maxi	4	4250	2100	2400	750	1600	75	5850
70 GE	Premium Drive	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
70 HGE	Premium Drive	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
70 HQ	Premium Drive	F3	Ducato Maxi	4	4250	2100	2400	750	1600	75	5850
65 HFL	Premium Drive	F3	Ducato Maxi	4	4400	2100	2500	750	1600	75	6000
70 GE	Premium Drive	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
70 HGE	Premium Drive	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
70 HQ	Premium Drive	F3	Ducato Maxi	4	4400	2100	2500	750	1600	75	6000
RENAULT Master X62											
65 GE A. Ed.	Premium Van	R1	Master	4	4000	1850	2200	750	1850	80	5850

All measurements in [mm] all weights in [kg]

1) without wing mirror, without side blinker
2) tow coupling is a special accessory
3) rear edge of traction unit to rear edge of back wall

Load increased for Fiat Ducato to 3650 kg without technical changes
Load increased for Fiat Ducato to 4000 kg/4250 kg using a maxi chassis (cannot be combined with 115 PS; 4,400 kg only for 177 PS))
Load increased for Master to 4000 kg by means of Goldschmitt additional pneumatic spring on the rear axle

Length of super-structure[3)]	Total length	Height	Width [1)]	Front tread width	Rear tread width	Wheel base	Front projection	Rear projection
4503	6994	2770	2340	1810	1980	4035	948	2011
4953	7444	2730	2340	1810	1980	4035	948	2461
4953	7444	2770	2340	1810	1980	4035	948	2461
4953	7444	2770	2340	1810	1980	4035	948	2461
4503	6994	2797	2340	1810	1980	4035	948	2011
4953	7444	2757	2340	1810	1980	4035	948	2461
4953	7444	2797	2340	1810	1980	4035	948	2461
4953	7444	2797	2340	1810	1980	4035	948	2461
4503	6994	2797	2340	1810	1980	4035	948	2011
4953	7444	2757	2340	1810	1980	4035	948	2461
4953	7444	2797	2340	1810	1980	4035	948	2461
4953	7444	2797	2340	1810	1980	4035	948	2461
4523	7116	2660	2140	1750	1860	4332	842	1942

14.3 Vehicle and equipment weights

Model	Series	Weight of basic vehicle	Driver	Diesel [kg]	Unladen weight [kg]	Basic equipment	Mass when vehicle is ready to start	t.p.o.w. [kg]	Overload weight
FIAT Ducato X290									
65 HFL	Premium Drive	2876	75	69	3020	121	3141	3500	359
70 GE	Premium Drive	2887	75	69	3031	121	3152	3500	348
70 HGE	Premium Drive	2974	75	69	3118	121	3239	3500	261
70 HQ	Premium Drive	2950	75	69	3094	121	3215	3500	285
RENAULT RENAULT Master X62									
65 GE Anniv. Edition	Premium Van	2905	75	61	3041	121	3162	3500	338

14.4 Tyres and rims for motor homes

	Light chassis					Series		Optional extra[1)]	
Hobby Model	**Series**	**t.p.o.w. [kg]**	**Perm. axle load front**	**Perm. axle load rear**	**Tyre size**	**Metal wheel rim**	**Tyre size**	**Metal wheel rim, optionally alloy wheel rim**	**Wheel attachment***
FIAT Ducato X290									
65 HFL	Premium Drive	3500 / 3650	1850	2000	215/70 R 15 C	6 J x 15, ET 68	225/75 R 16 C	6 J x 16, ET 68	5 / 71 / 118
70 GE	Premium Drive	3500 / 3650	1850	2000	215/70 R 15 C	6 J x 15, ET 68	225/75 R 16 C	6 J x 16, ET 68	5 / 71 / 118
70 HGE	Premium Drive	3500 / 3650	1850	2000	215/70 R 15 C	6 J x 15, ET 68	225/75 R 16 C	6 J x 16, ET 68	5 / 71 / 118
70 HQ	Premium Drive	3500 / 3650	1850	2000	215/70 R 15 C	6 J x 15, ET 68	225/75 R 16 C	6 J x 16, ET 68	5 / 71 / 118
RENAULT Master X62									
65 GE A. Ed.	Premium Van	3500	1850	2100	225/65 R 16 CP	6½ J x 16, ET 66	---	---	5 / 88 / 130

[1)] not in connection with motorisation 115 PS

* No. of tyre bolts / centralising collars / bolt circle

Renault: LM-Felge = Series

Tyres and rims for loaded motor homes

Maxi chassis (increased load)

Hobby Model	Series	t.p.o.w. [kg]	Perm. axle load front	Perm. axle load rear	Tyre size	Metal wheel rim, optionally alloy wheel rim	Wheel attachment*
FIAT Ducato X290							
65 HFL	Premium Drive	4250 / 4400	2100	2400 / 2500	225/75 R 16 C	6 J x 16, ET 68	5 / 78 / 130
70 GE	Premium Drive	4250 / 4400	2100	2400 / 2500	225/75 R 16 C	6 J x 16, ET 68	5 / 78 / 130
70 HGE	Premium Drive	4250 / 4400	2100	2400 / 2500	225/75 R 16 C	6 J x 16, ET 68	5 / 78 / 130
70 HQ	Premium Drive	4250 / 4400	2100	2400 / 2500	225/75 R 16 C	6 J x 16, ET 68	5 / 78 / 130
RENAULT Master X62							
65 GE A. Ed.	Premium Van	4000	1850	2200	225/65 R 16 CP	6½ J x 16, ET 66	5 / 88 / 130

14.5 Inflation pressures

Motor homes		
Tyres	**Tyre pressure (bar)**	**Basis**
Michelin XC Camping		
215/70 R 15 C	front: 5,0 rear: 5,5	FIAT
225/75 R 16 C	front: 5,5 rear: 5,5	FIAT
other tyre manufacturers [1)]		
225/65 R 16 C	front: 4,0 rear: 4,8	RENAULT
215/70 R 15 C	front: 4,1 rear: 4,5	FIAT
225/75 R 16 C	front: 4,5 rear: 5,0	FIAT

[1)] These tire pressures are only valid for standard tires made by alternative manufacturers (e.g. Continental, Pirelli, etc.).

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